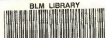


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THE

FEDERAL COAL MANAGEMENT PROGRAM

AND THE

DEPARTMENT'S COAL LEASING POLICY

Prepared by the
Department of the Interior
Bureau of Land Management
May 1983

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I. INTRODUCTION

Energy is the Achilles' heel for America, whether speaking of consumer interests, national defense interests, or international affairs. Coal development can assist in the strengthening of America through the creation of jobs and economic security; fuel for industry or for electricity to heat and cool our homes, hospitals, and schools; and coal can contribute, through exports, to our balance of trade. The Federal Government, through sound management of its coal resources, can make an enormous contribution to American energy independence.

In terms of resource ownership, the Federal Government is a monopolist. In the West, over 80 percent of the coal is controlled by the Federal Government -- 60 percent through direct ownership and 20 percent because of interspersed land ownership patterns. Of the Federal lands which contain 200 billion tons of coal reserves, only 18 billion tons have been leased to supply the American consumer.

The Interior Department has responsibility for leasing Federal coal lands and has developed an environmentally sensitive and economically sound leasing program. The Federal Coal Management Program is designed to give the Nation a greater assurance of being able to meet its national energy objectives; provide a means to promote a more desirable pattern of coal development with environmental protection; assure that State and local governments participate in decisions regarding where and when Federal coal production will take place; and increase competition in the coal industry.

Through the Federal Coal Management Program, coal leasing and development are being done in an environmentally sensitive manner which minimizes the economic and administrative burden on both the public and the Government while assuring a fair return to the Treasury for use of the Nation's coal resources. Some history of the development of this program provides insight.

The Past Decade

The current structure of the Federal Coal Management Program is the result of a series of events that began in 1970. In 1970, a Bureau of Land Management (BLM) study revealed that Federal coal leases were being obtained for speculative purposes and that production from leased Federal lands was inconsistent with the number of acres under lease. To illustrate, in 1945, 80,000 acres were under lease providing 10 million tons of coal annually. By 1971, acreage under lease increased to 800,000, but production had decreased to 9.1 million tons annually. (On April 25, 1983, a total of 17.43 billion tons of coal reserves on 948,486 acres were under lease with production at 108 million tons in 1982.)

An informal moratorium was placed on new leasing in 1971 and, in 1973, a formal moratorium was instituted which allowed new leasing only to meet short-term needs.

In 1974, a draft environmental impact statement (EIS) describing the Energy Minerals Allocation Recommendation System (EMARS I) was published. The final EIS was released in 1975, but the preferred program was retitled the Energy Minerals Activity Recommendation System (EMARS II). The EMARS II program was adopted as policy in January 1976 and final regulations were published in January 1977. This policy was heavily dependent on industry and public nominations to identify the need for tracts for development.

Shortly after the adoption of EMARS II as Departmental policy, a lawsuit was filed alleging that, because of certain defects, the 1975 final coal programmatic EIS was legally inadequate (NRDC et al., vs Royston Hughes et al.).

On September 27, 1977, the U.S. District Court for the District of Columbia ruled that the EIS was inadequate, and the Department was therefore in violation of the National Environmental Policy Act (NEPA). Accordingly, the Department was enjoined from implementing the EMARS leasing policy and was directed to prepare a supplement to the coal programmatic EIS to meet the NEPA requirements.

During 1976 and 1977, legislative action also occurred that impacted the design of the Federal Coal Management Program. In 1976, the Federal Coal Leasing Amendments Act, which established specific rules to guide the development of Federal coal (including competitive leasing), was passed. In that same year, Congress enacted the Federal Land Policy and Management Act requiring that the Bureau and the Department ensure that all resource development decisions related to the public lands, including coal leasing, are made in cooperation with State and local governments as part of a comprehensive planning process. In addition, the Surface Mining Control and Reclamation Act of 1977 requires the Secretary to review Federal lands to determine whether they contain areas which are unsuitable for all, or certain types of, surface coal mining operations.

In 1977, a coal policy review was conducted within the Department which concluded that a new programmatic EIS would be prepared to fully consider the new legal requirements and to respond to the court order. The Department filed an appeal to the NRDC vs. Hughes decision (NRDC vs. Hughes, 454 F. Supp. 148 (D.D.C. 1978)) and reached a negotiated settlement, which was adopted as the June 1978 amended court order. The amended court order allowed more flexibility to issue coal leases to meet certain "short-term" needs until a new coal leasing policy could be established.

The result of the coal policy review was a new programmatic EIS published in April 1979, the adoption of a new comprehensive program in June 1979, and the issuance of final program regulations in July 1979. The program was further refined in July 1982 to strengthen the leasing methodology and again in January 1983 to add additional public participation through the coal State Governors and enhance the role of the regional coal teams.

Program Goals

The Federal Coal Management Program is designed to:

- A. Make ample supplies of coal available to the market in order to provide coal at competitive prices for the benefit of national energy consumers.
- B. Provide a range of alternative mining sites in order to promote the most efficient patterns of coal development with environmental protection.
- C. Assure that the State and local governments participate in decisions about where and when Federal leasing and production will take place.
- D. Increase the range of mining opportunities in order to stimulate competition in the coal industry.

The United States must reduce its vulnerability to new oil supply disruptions and must minimize key uncertainties about the Nation's energy future. As part of its overall minerals policy, the Department is facilitating the identification, exploration, and development of Federal energy resources -- particularly coal -- as a means of curtailing the foreign oil drain on the Nation's economy and enhancing national security. Opportunities to expedite coal and energy development are considered in the context of multiple-use resource management and established standards for environmental protection. Through the Federal Coal Management Program, coal leasing and development are conducted in a manner that minimizes the economic and administrative burden on both the private sector and the government while assuring a fair return to the Treasury for use of Nation's coal resource.

Additionally, as a means of stimulating the national economy, the United States must ensure that a competitive energy market is maintained domestically. In this endeavor, coal plays an integral part. The Federal Government, as a major owner of U.S. coal reserves ^{1/}, has to guard against creating any institutional barriers to a free coal market that would artificially cause high energy costs to the public.

^{1/} The Department, through the Bureau of Land Management (BLM), administers federally owned coal that is concentrated in six Western States (Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming) and in smaller amounts in other States (e.g., Oklahoma and Alabama).

Program Configuration and Recent Coal Production

In January 1981, the Secretary of the Interior initiated steps for the development and use of the many resources in the realm of responsibility of the Department. This administration felt that the country's economic and national security were in jeopardy because of past failures to properly develop America's abundant natural resources, among the most important of these being coal. In 1981, less than 1 percent of Federal coal lands were under lease, and new leasing had been at a virtual standstill since 1971. The Nation was dependent upon foreign sources for 40 percent of its crude oil supply. By aggressively leasing more coal, this Nation can reduce this dependency on foreign supplies of energy and provide the American consumer energy at lower costs. Coal is a necessary component of the Nation's energy picture and coal leasing provides a positive benefit to all Americans.

In 1981, the Department issued 55 coal leases on 118,663 acres, compared to 26 leases on 19,938 acres during 1979 and 1980. The Department increased by 800 percent the tonnage of coal leased in 1981 and 1982 over 1979 and 1980. The Department leased 1.7 billion tons of coal in 1981 and 1982, compared to 211 million tons leased in 1979 and 1980. All of this has been achieved with proper environmental safeguards, land-use planning, open public participation and close consultation with State Governors, other agencies and Indian Tribes.

The Interior Department has scheduled one coal lease sale in Fiscal Year 1983 and five coal lease sales for Fiscal Year 1984 -- in the Fort Union, San Juan River, Uinta-Southwestern Utah, Southern Appalachian, Green River-Hams Fork, and Powder River Coal Regions. These lease sales involve total proposed leasing levels in the range of 4.01 billion to 8.59 billion tons of Federal coal. The scheduled coal lease sales represent the culmination of several years of planning involving close consultations with the Western States included on regional coal teams. The lease sales for the San Juan River and Fort Union Regions will be the first regional lease sales in those regions since the Federal Coal Management Program was introduced in 1979.

The Growth of Western and Federal Coal Production

Since the OPEC price shock of 1973-1974, the United States has sought to expand domestic energy production. The area in which the greatest success has been achieved has been coal. Since 1973, there has been a 40 percent increase in U.S. coal production. Of this increase, 82 percent has come from the west; since 1973, western coal production has risen from 76 to 268 million tons per year. Western coal now contributes 33 percent of U.S. coal production. Federal coal has supplied almost half of the new western coal output. Since 1973, Federal coal production has risen from 14 to 104 million tons per year.

Despite its rapid growth, Federal coal production still lags behind the potential of Federal coal. Federal coal constitutes 60 percent or more of total western coal reserves and, because of land ownership patterns, the Federal Government indirectly affects another 20 percent. Yet, in 1981, Federal coal supplied 39 percent of western coal production. For more Federal coal to be produced, it must be available to companies seeking to form a new mine or expand an existing mine.

With the expansion of Federal coal production, the amount of Federal coal in mine plans has been increasing. This increase has caused a corresponding decrease in the amounts of leased Federal coal that is still uncommitted and thus available for new prospective mines. For all Federal coal, this amount of uncommitted coal has fallen by 119 million tons (2 percent) from 1979 to the present. This has occurred despite the leasing of more than 2 billion since 1981.

Some observers have suggested that this development is desirable -- that the Interior Department should seek to maintain a minimum inventory of leased but uncommitted coal. For the reasons presented in this report, the Department believes this leasing approach would be a serious mistake.

Interior's coal management program is primarily directed toward issuing new leases through a regional process and involves four major steps. The first step is land-use planning and public review, where lands acceptable for further consideration for coal leasing are identified in conjunction with other resource decisions. In the second step--activity planning--a schedule for coal lease sales in each region is selected and analyzed with full public participation in an EIS.

A leasing level for each region is selected by the Assistant Secretary in the third step of the program. The last step of the program sets out procedures for managing individual coal sales. From the time a tract is selected for sale until a lease is issued, several administrative and statutory requirements must be completed. They include: (1) obtaining written consent from qualified private surface owners over federally owned coal; (2) public participation and consultation with State Governors, the Attorney General, affected Indian Tribes, and surface management agencies; and (3) evaluating the results of the competitive lease sale to determine if fair market value is achieved and to select the successful bidders.

The fundamental changes reflected in the coal leasing program include:

- ° Formal land-use planning with public involvement and Governor consultation;
- ° Full examination of alternative leasing strategies and full disclosure of environmental effects and mitigation measures;

- ° Leases offered competitively with assurances for receipt of fair market value; and
- ° Stringent diligent development requirements. (If a new lease is not developed and producing in commercial quantities within 10 years of lease issuance, the lease is forfeited and returned to the Federal Government.)

In addition, emergency lease applications for areas within coal regions are considered in the interest of resource conservation for cases where Federal coal may be bypassed or where coal is needed to continue existing production or meet existing contracts. The program also contains provisions for the processing of pending preference right lease applications (PRLAs) that remain from the pre-1976 prospecting permit-preference right leasing system. The Department has adopted a work program which will process these remaining PRLAs to the point of decision by December 1, 1984.

The 1982 changes to the coal leasing program provide many benefits over the old program, particularly in the following areas:

A. Economics

- ° Accelerated leasing with new environmental safeguards and stringent diligent development requirements prevents long-term speculation by industry and allows environmentally preferable coal leases to compete with older leases that do not comply with current environmental standards. Consequently, the costs associated with environmental damage are minimized.
- ° Continued leasing keeps the value of leases competitive and prevents industry from gaining windfall profits on old leases which would result from restricting the market.
- ° New leasing reduces speculation via lease transfer or reassignment because industry or supply contractors can now shop competitively in the marketplace for new leases.
- ° By offering leases competitively and requiring industry to submit sealed bids, the new program forces industry to disclose what they are willing to pay and helps ensure receipt of fair market value.
- ° By discontinuing the practice of leasing as a monopolist, the Federal Government can help reduce the price of electricity, manufactured goods, and inflation and can eliminate the hidden tax consumers otherwise pay.
- ° The leasing program provided \$123 million in bonus revenues from January 1981 to October 1982 and \$101 million in royalty revenues in FYs 1981 and 1982. These revenues are shared 50/50 with the States.

B. Environment

- ° All new leasing has environmental safeguards. Environmental impact statements are prepared for:
 - Program development and adoption.
 - Resource management plans or land-use plans for regional coal sales prior to sale.
 - Mine plans submitted for review and approval.
 - Reclamation plans modified to reflect changing technology.
- ° New coal leases with environmental safeguards compete with old leases that were issued prior to new environmental standards.
- ° The current program has more stringent mitigation standards and requirements than ever before.
- ° New leasing allows clean burning low sulfur coal to compete with lower quality resources.

C. Public Participation

- ° New leasing is done with full disclosure and full public participation through the planning and EIS processes.
- ° Governors are consulted and the Secretary publishes his reasons for accepting or rejecting the Governor's recommendations.
- ° Regional coal teams are established to oversee the leasing program and provide an open forum for public participation. Recommendations developed at the local level guide the program.
- ° Planning and EIS processes are developed openly to provide full disclosure to the public and provide opportunity for the public to make comments and recommendations.

D. National Economy - Jobs

- ° Developing domestic coal resources provides for employment in America rather than in foreign countries. Specific examples directly affected are mining, transportation (e.g., railroads), electric utilities, steel and metals, and heavy equipment manufacturing. Industries indirectly affected include automobile manufacturing, light equipment manufacturing, and construction trades. Local economies also directly benefit.

- ° Coal development can displace imported fuels currently used for power plants or heat processes thereby improving national economic strength by reducing imports.
- ° Reducing costs at home through competitive markets improves America's ability to compete in foreign markets and with foreign manufacturers in American markets.

E. National Security

- ° Accelerated leasing and development of domestic resources reduces America's dependence on unstable foreign imports.
- ° Coal can displace fuel oil in areas such as electricity generation or other heat processes and thereby substitute for an energy source where we have hundreds of years of reserves rather than remain dependent on an uncertain supply.
- ° Synthetic fuel development for national security is dependent on new coal leasing.

F. Consumer Interests

- ° Accelerated leasing increases market competition and eliminates the hidden tax American consumers have paid because of monopolistic pricing of Federal coal reserves.
- ° Accelerated leasing is expected to result in achieving our goal of lower consumer prices for:
 - Oil and gas.
 - Electricity.
 - Steel and metal products.
 - Manufactured goods.

In summary, leasing to meet the demand for reserves in essence means leasing to ensure that adequate supplies of uncommitted coal reserves are maintained so that the most competitive source of coal production can be found and developed for the benefit of the American consumer.

This report examines the background and history of the Federal Coal Management Program and provides the rationale behind the policies of this administration for managing this resource. Specifically, it provides an analysis of vital issues which center on the environment, the economy and the role of the Federal Government as a monopolist, public participation, national security, jobs, and revenues from the program.

II. FEDERAL COAL LEASING

The Department's objective in providing broad offerings of Federal coal leases is not to create a surplus or shortage of coal resources on the market, but to lease sufficient coal resources to allow for efficient coal development. Coal resources that are not leased are not available to compete for contracts to supply coal to coal users. The Department wants to be certain that enough coal is leased to ensure that the market for coal supply contracts will be fully competitive. Since 1979, the General Accounting Office, Council on Wage and Price Stability, Department of Energy, and Department of Justice, as well as private consultants working for these agencies, have vociferously argued for this policy based on their concern that a restrictive leasing policy would have the effect of increasing coal prices to consumers. (See Appendix A.) Their reasoning contains two key elements. First, coal is not a homogeneous commodity; therefore, it is essential that coal resources that can be produced most efficiently for each user be available, i.e., under lease. Second, to insure adequate competition, there must be a sufficient number of producers to meet the needs of each individual coal user.

Monopolist

If the Department restricts the quantity of coal resources offered, higher prices (bonus bids) could be obtained because the Federal government has the ability to act as a monopolist in the market for coal resources; the Federal government owns approximately 60 percent of western coal resources and controls another 20 percent by virtue of its land ownership patterns. A policy of restricting supply by restricting the quantity of coal resources offered for sale would not be in the public interest. The demand for coal would still be satisfied in the market place without Federal coal leasing. However, the demand would be satisfied at a higher cost to the consumer. By restricting Federal coal leasing, the western supply of available resources is potentially reduced by 80 percent. As with any commodity, when coal resources become reflectively scarce (not available) the price will increase. With less coal available and less competition among the coal suppliers (coal companies), utilities will pay higher prices for the coal. The higher cost to the utilities is then passed on to the consumer. The cost to the consumer will also be increased under a policy of restricted leasing in situations where the unleased Federal resource is the most cost effective to develop; Development of coal resources will occur to meet the consumer demand; however, it will occur on tracts that have a higher development cost.

This point of shifting development intra-and interregionally is very significant. The actual quantifying of what the exact shifts will be and what will be the associated cost to the consumer is impossible to accurately estimate. The next section "production goals" point out some of the weaknesses in attempting long range modeling of coal supply and demand, of which development is a component. Section VIII ("Development Prospects of Existing Federal Leases") does discuss the Department's

view of the future for each of the coal regions and the scheduled FY 1983 and 1984 sales. However, these estimates are not on a leased tract by tract basis, much less a detailed discussion of private and unleased Federal coal tracts.

When a commodity is demanded in a perfectly competitive market, the market will respond by satisfying that demand in the most cost efficient manner. As is already recognized, the coal market is not perfectly competitive, most notably because of the monopoly power of the government. In the case of the coal market when coal is demanded that market will respond by satisfying that demand in the most cost efficient manner available. Unleased Federal coal that is not available cannot compete to satisfy the market demand. With the Department's extensive land-use and activity planning process, it can take 4 years to bring a Federal coal tract to the point that it can be offered for lease. This is far too long a lead time to respond to market forces. The Department recognizes its inability to know what the exact future coal demand will be and which tracts are the most cost efficient to meet that demand. The market's ability and central planning's inability to allocate resources effectively is well documented. In response to this, the Department has made a conscious decision to minimize the government's role in allocating coal resources. Within the confines of the Treasury receiving fair compensation for the resource, protection of the environment and concerns raised by the State Governors, the market will be allowed to determine which tracts will be available to compete for satisfying the demand for reserves.

Production Goals

Even in situations where the intent is not to restrict Federal coal leasing but to tailor the supply to the projected need, there are high costs to the consumer. This "one-to-one" approach relies heavily on the accuracy of the projection tools utilized by the government. It can take 4 years for the government to offer a tract for lease and up to 7 additional years for a company to bring a large western coal mine into minimal production. This forces the government to project at least 10 years into the future with pin-point accuracy.

Estimating with any degree of accuracy the U.S. and world energy supply and demand for just a few years is next to impossible. Yet what is required in a tailored "one-to-one" approach to Federal coal leasing is to make projections 10 years into the future, plus identify the least cost tracts and match the potential consumers with those least cost tracts. Any inaccuracies or miscalculations in any of these requirements leads to the same results as restricting the available supply -- higher costs to the consumer.

Under the Federal Coal Management Program introduced in June 1979, the Department of Energy (DOE) set production goals for western coal regions. The Interior Department then estimated the amounts of coal that would be

forthcoming from non-Federal sources and existing Federal leases -- and thus would not depend on any further Federal coal leasing. If this already "committed" coal production fell below the DOE production goal for a region, only then would new Federal leasing be required in the region to make up the "shortfall".

Unfortunately, the precision called for in this procedure strained government projection capabilities. Production goals varied substantially as expectations for future coal production shifted. As an extreme example, DOE projections for U.S. coal to be used in synthetics production in 1990 went from 55 million tons in 1978, to 28 million tons in 1979, and then all the way up to 198.3 million tons in 1980. Estimates of already committed production also proved highly variable.

Reflecting these concerns, the General Accounting Office, in 1980, and the Antitrust Division of the Justice Department, the Council on Wage and Price Stability and the Department of Energy (DOE), in 1981, called for modifications in the DOI leasing approach to allow greater leasing. (See Appendix A.)

Leasing Levels

In 1981, the Interior Department shifted the emphasis in coal leasing from exact government planning to responding to the market so that the problems of trying to supply exactly enough leases to meet some specific production goal could be overcome. Under this change in philosophy, an adequate inventory of uncommitted Federal coal reserves should be maintained, allowing new coal buyers to select from leased reserves held by a number of different coal mining companies and located at alternative sites. The resulting competition among Federal lessees to obtain new contracts will result in lower prices for utility and other new coal buyers; it will also give new coal buyers more leeway to find the lowest cost mining and transportation sites and the types of coal which best meet their specific needs. In short, new leasing is called for whenever there is a need to replenish the inventory of existing nonproducing and uncommitted leases available for new production commitments. The market, not the government, will then determine the attractiveness of these new and uncommitted leases, and when and to what degree they will be brought into production.

There is no easy mechanical formula for determining the correct level of uncommitted leased reserves to provide adequate industry competition and adequate mining-site selection alternatives. The Interior Department considers numerous factors in making the leasing level decision. One key factor is the extent to which previously leased reserves are already committed to existing mine plans and thus would be unavailable to form new mines or to expand the area of an existing mine. Another factor is the projection for future coal production (1990 and 1995) in each coal region. This information can be translated into an expected rate of new contracting, which will have to draw upon an existing inventory of already leased but still uncommitted and available Federal coal reserves. Expressions of interest by industry indicate the potential demand for new mine

sites or expansion of existing sites. Environmental concerns about particular sites or the impacts of cumulative coal development levels in a region may require that the levels of coal leasing be limited in certain areas and/or for the whole coal region.

The Interior Department examines all the factors affecting the inventory level of uncommitted leased Federal reserves that it seems desirable to maintain. Reflecting the considerable uncertainties, a range of possible leasing levels is developed. This range is developed in close consultation with regional coal teams, which include representatives of affected State Governors. Federal and State officials have been able to reach basic agreement in all past coal lease sales and have worked very closely on the preparations for the Fiscal Year 1984 sales (see Appendix B, Tables 1-a, 1-b, and 1-c).

In an effort to not restrict the supply of reserves available to satisfy the demand for coal resources, the Department approaches each sale with a large supply of reserves early in the process. The leasing level is the first cut at what will eventually be offered for lease.

The concept of leasing levels is based on the idea that the Department will give companies the opportunity to bid on a wide range of coal tracts. However, before giving companies the opportunity to compete for the resources the coal tracts to be offered are evaluated in a regional EIS. After the EIS is completed, tracts that are not desirable for leasing are not recommended by the RCT and are removed from the tracts to be offered for lease.

Market Demand

An effective way to monitor market demand in order to determine what is the appropriate quantity to offer for lease is to observe the prices the in situ coal resource is receiving in the market place. An oversupply or undersupply of coal resources on the market will manifest itself in a dramatic drop or increase in the prices (bonus bids) the Department receives for its coal resources (see Appendix B, Tables 2-a, 2-b, and 2-c).

Two common ways of evaluating the bonus bids to assess the compensation received are on a per acre and per ton basis. A per acre measure has the obvious disadvantage of being a measure of the surface acreage with little relationship to the coal resource that lies beneath. Analyzing the price on a per ton basis is a somewhat better measure. However, coal resources are not homogeneous commodities. The most significant difference is the energy value (BTU) of the resource. Commonly leased Federal coal resources range from a low of 7,000 BTU's per pound in the Fort Union Coal Region to over 14,000 BTU's per pound in the Uinta-Southwestern Utah Coal Region.

An analysis based on cents per BTU captures this difference but does not address many of the other significant differences. The best measure for capturing all these differences is the price in the market place that the coal itself brings. For example, mined coal that has relatively high BTU and low sulfur content will generally receive a higher price in the market place than coal that has a relatively low BTU and high sulfur content. The market price captures, at one time, all the characteristics that add to or subtract from the value of the mined coal.

Appendix B, Table 2-c, the last column, gives the average high bonus bid for the resources as a percentage of the current mine mouth selling price of coal for the regions where lease sales have been held. For the three larger western sales held to date, the average high bonus bid stated as a percentage of the current selling price of mined coal has remained relatively constant (between .5 and .7 percent of the current market price of the coal). This has occurred in spite of the variation in average BTU content (a low of 8,000 BTU's per pound in the Powder River Region and a high of 14,000 BTU's per pound in the Uinta-Southwestern Utah Region), and the chronology of the sales, with the first Green River-Rams Fork sale in January 1981 and the last Powder River sale in October 1982. This consistency in the average high bonus bid is very significant in analyzing claims of overleasing. The average compensation that the Federal Government has been receiving through bonus bids has not been forced down due to overleasing as some critics claim.

Previous analysis of the Department's sales have commonly utilized cents per ton as the unit to compare the bonus bids. This has led to a significant amount of criticism of the recent regional coal lease sales, most specifically the first round Powder River regional sale, as examples of overleasing. Analysis of sale results on a cents per ton basis can be very misleading. (The average consumer would not be deceived into believing a pound of T-bone steak should cost the same as a pound of round steak, even though they are both beef products.) The price that a ton of mined Powder River coal can bring in the market place (\$7.50 per ton) does not compare with the price Uinta mined coal can command (\$28.00 per ton). Given this difference in mine mouth value of the coal, it is only reasonable to assume that the value of the coal resource before mining is also not identical.

By evaluating the sale results for the three Western sales held from January 1981 through October 1982 on a percentage of market price basis, it is clear that overleasing is not occurring. Actually, a case can be made that the opposite is quite possibly true. In the Southern Appalachian Region, Federal coal is a very minor fraction of the total available

coal resources. The Department has no monopoly power in this region and must take the market rate for its coal resources or not lease it. As Table 2-c, Appendix B, shows, the average high bonus bid as a percentage of price is very low (.076 percent) in the one region where the Department's sales cannot significantly influence the market price for coal resources; This information could actually imply that the Department is still under-leasing in the western regions and collecting monopoly rents.

Two other factors that should be considered in assessing coal resource demand are market analysis for each coal region done in conjunction with formulating the regional leasing levels and industry's expressed interest in leasing coal (see Appendix B, Table 1-a). The projected coal needs, along with other factors, are considered in setting the regional leasing level for each region. The RCT's recommended leasing levels indicate a significant need for coal reserves in these 6 regions. From the analysis of the leasing levels, the leasing needs for these regions could be from 5 to 11 billion tons of recoverable coal reserves above what is already under lease (see previous discussion on leasing levels).

Industry's formal expressions of leasing interest also indicate a high level of demand for coal reserves. Through this expressions of interest process, companies have indicated a desire to lease or to have offered for lease 10 to 17 billion tons of additional recoverable coal reserves in the next few years. Most of this additional coal is expected to be used to supplant less economically and environmentally desirable coal resources that are already under lease (see section VIII for further discussion). The new leased tracts would have a better chance of being mined because they are more efficient. Old leases on the less efficient tracts would eventually be relinquished.

The Department's objective is to provide for leasing sufficient quantities of coal resources to allow for efficient development. To do this, the Department must respond to the market demand for coal reserves. Market analysis by the Department, industry's expressions of interest and, most significantly, the price the Department is receiving for the resources all indicate that the market demand for coal resources has remained relatively high.

In responding to the market in this manner, the Department recognizes that not all tracts offered will be leased. It also recognized that not all leased tracts will be developed. Following 10 years of nondevelopment, these tracts will be returned to the Department's control under the diligent development provisions mandated by Federal Coal Leasing Amendments Act of 1976.

Compensation and Allocation

Since the early 1970's, some individuals and organizations have been concerned with the sale of Federal coal development rights without adequate compensation. Many of the requirements in the Federal Coal Leasing Amendments Act of 1976 (including only competitive leasing,

changes in the royalty and rental rates, and stricter enforcement of diligent development requirements) were included to address this concern over adequate compensation. The inability to resolve this compensation issue, plus that of resource allocation, have hampered the Federal coal management program for many years.

The Federal Government, as lessor, receives compensation for its coal leases in several ways. Direct compensation is received in the form of royalties on coal production, annual per-acre rental payments, and cash bonus payments. Where the lessee obtains above normal returns after making these payments, additional compensation is provided to the Federal Treasury in the form of higher corporate income taxes.

The royalty and per-acre rental rates are fixed prior to the lease sale. In general, for tracts which will go into production in time to meet the 10-year diligence requirement, the royalty payment (set at 12 1/2 percent of production value for surface-mined coal) will capture the greatest portion of the lease revenues obtained by the government. The Department's fair market value policies are aimed at ensuring that the cash bonus payment captures for the government a fair share of the lease value which remains after accounting for the lessee's royalty and rental obligations. This is in accordance with the Uniform Appraisal Standards for Federal Land Acquisitions (Interagency Land Acquisition Conference, 1973) which defines "fair market value" as "the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would be sold by a knowledgeable owner willing but not obligated to sell to a knowledgeable purchaser who desired but is not obligated to buy."

Prior to August 1976, allocating the resource took two basic forms -- competitive and non-competitive leasing. In 1976, Congress required that all leases be acquired competitively. With a few exceptions, competition has been in the form of bonus bids at auctions. Once the high bidder meets the qualifications for holding a Federal lease and the high bid is determined to achieve fair market value, the lease is issued to that company or individual. Development and production of the leased coal can then occur, subject to the terms and conditions of the lease and acquiring all the required Federal, State, and local permits.

The bulk of Federal coal lease revenues have been in the form of royalty payments. Most leases issued prior to August 1976 that have not been readjusted, have royalty rates ranging from 15 to 22.5 cents per ton. Most post-1976 leases have royalty rates of 8 percent of production value for underground mines and 12.5 percent of production value for surface mines. A royalty rate based on a percentage of production value will depend on the selling price of the coal. For surfaced mined coal, the effective royalty rate of new leases (those with 12.5 percent royalty rates) is \$1.00 to \$4.00 per ton of production at current prices. Powder River has the lowest effective rate (about \$1.00 per ton) due to its lower value coal. However, this is still 4 to 5 times higher than the royalty rate on old unreadjusted leases in the region.

The significance of this royalty rate change can also be appreciated in times of high inflation. Where the royalty rate is based on cents per ton and inflation occurs, the compensation paid the government is continually being reduced in real terms. For leases with royalty rates that are a percentage of the production value, the real compensation paid the government tends to remain constant. In FY 1982 \$61 million were collected in royalties from a production of 104 million tons. However, in FY 1975 production was approximately half that amount (44 million tons) but royalties collected totaled less than \$5 million (see discussion in "production and royalty" section and Appendix B, Tables 3-a, 3-b, 3-c, and 3-d). With continued readjustments of the pre-1976 leases to a percentage basis there will continue to be significant increases in the royalties collected.

Royalty payments for the development rights to the coal resources have proven to be a very efficient and lucrative form of compensation for the government. However, this compensation occur only when production occurs on the lease. Rentals on a per acre basis are collected as an attempt to acquire compensation when production does not occur. On unadjusted pre-1976 leases rental rates generally range from 25 cents to one dollar per acre per year, and apply only when the lease is not in production. Except in a few instances, post-1976 leases have an annual rental rate of 3 dollars per acre and apply whether production is occurring or not. This form of compensation has only proven mildly successful in generating revenue. The relatively low annual rental rate has not significantly increased the compensation due the government during times of non-production.

III. HISTORY AND BACKGROUND

The current structure of the Federal Coal Management Program is the result of a series of events that began in 1970 and included direction from the three branches of the Federal Government. In 1970, a BLM study revealed that Federal coal leases were being obtained for speculative purposes and that production from leased Federal lands was inconsistent with the number of acres under lease. To illustrate, in 1945, 80,000 acres were under lease providing 10 million tons of coal annually. By 1971, acreage under lease increased to 800,000 but production had decreased to 9.1 million tons annually.

Moratorium

As a result, an informal moratorium was placed on new leasing in 1971 and, in 1973, a formal moratorium was instituted which allowed new leasing only to meet short-term needs. Issuance of prospecting permits was also suspended, and a new long-term leasing policy development effort was begun (including the preparation of a national programmatic EIS).

In 1974, a draft EIS describing the Energy Minerals Allocation Recommendation System (EMARS I) was published. The final EIS was released in 1975 but the preferred program was retitled the Energy Minerals Activity Recommendation System (EMARS II). The EMARS II program was adopted as policy in January 1976 and final regulations were published in January 1977. This policy, which was heavily dependent on industry and public nominations to identify the need for tracts for development, lifted the moratorium on new major Federal coal leasing. The limited short-term policy was to remain in effect until a new competitive system was fully operational.

NRDC Lawsuit

Shortly after the adoption of EMARS II as Departmental policy, a lawsuit was filed by the Natural Resources Defense Council, Inc. (NRDC) -- NRDC et al., v. Royston Hughes et al., 437 F. Supp. 981 (D.D.C. 1977). The NRDC alleged that, because of certain defects, the 1975 final coal programmatic EIS was legally inadequate. Specifically, it was charged that the EIS did not adequately describe the coal leasing program, it did not consider proper alternatives, it was done in a manner which deprived the public of an opportunity to comment on the proposal, and it failed to consider whether there was a need for resumption of Federal coal leasing.

On September 27, 1977, the U.S. District Court for the District of Columbia ruled that the EIS was inadequate, and the Department was therefore in violation of the National Environmental Policy Act (NEPA). Accordingly, the Department was enjoined from implementing the EMARS leasing policy with two very limited exceptions for short-term leasing. In addition, the Department was directed to prepare a supplement to the coal programmatic EIS to meet the NEPA requirements.

New Legislation

During 1976 and 1977, legislative action also occurred that impacted the design of the Federal coal management program. In 1976, the Federal Coal Leasing Amendments Act, which established specific rules to guide the development of Federal coal (including competitive leasing), was passed. In that same year, Congress enacted the Federal Land Policy and Management Act requiring that the Bureau and the Department ensure that all resource development decisions related to the public lands, including coal leasing, are made in cooperation with State and local governments as part of a comprehensive planning process. In addition, the Surface Mining Control and Reclamation Act of 1977 requires the Secretary to review Federal lands to determine whether they contain areas which are unsuitable for all, or certain types of, surface coal mining operations.

In 1977, a coal policy review was conducted within the Department, and it was concluded that a new programmatic EIS would be prepared to fully consider the new legal requirements and to respond to the court order. The Department filed an appeal to the NRDC v. Hughes decision (NRDC v. Hughes, 454 F. Supp. 148 (D.D.C. 1978)) while pursuing a negotiated settlement with NRDC. The negotiated settlement, which was adopted as the June 1978 amended court order, allowed more flexibility to issue coal leases to meet certain "short-term" needs until a new coal leasing policy could be established if, in fact, there was a need for the coal.

The result of the coal policy review was a new programmatic EIS published in April 1979, the adoption of a new comprehensive program in June 1979, and the issuance of final program regulations in July 1979. The regulations were revised in July 1982 to streamline the leasing process and make it less burdensome on the industry, the public, and the government. In January 1983, interim final rules were published to clarify the role of the regional coal teams and to further identify areas for Department/State consultation in program decisions.

Existing Federal Coal Leases

As of April 24, 1983, 627 Federal coal leases had been issued. Of those 627 leases 115 were reported to have paid production royalty in FY 1982 (see the "Production and Royalty", section VII) on a total of 17.43 billion tons of Federal coal reserves covering 948,486 acres under lease. Appendix B, Tables 4-a and 4-b present total recoverable reserves under lease by State and coal region. Estimates made by the Office of Technology Assessment (OTA) and published in December 1981 placed the Federal recoverable coal reserves under Federal lease for the Nation at about 16.5 billion tons in 565 tracts.

Two basic measures of coal resources are referred to in this report and are generally used in the discussions involving the Federal coal program. The first term is "in-place resources" which means the total estimated amount of coal that is contained on a particular tract. The in-place resource term includes all coal resources regardless of the recoverability of that coal.

The second and most useful term is "recoverable reserves". This is the estimated amount of coal that can be extracted from a coal tract given established mining techniques. Wherever possible recoverable reserves is used in this report. Which term is being used should be noted as the difference can be quite significant. The recovery rate can be as high as 90 to 95 percent of the in-place resources on some surface mineable tracts. However, 30 to 40 percent is a common recovery rate in tracts mineable through underground methods. The OTA figure represents an average recovery rate of 36 percent for the 565 leases it studied.

Appendix B, Tables 4-c and 4-d give the acres under lease by State and coal region as of April 24, 1983. The States of Utah, Wyoming, and Colorado contain approximately 76 percent of the leased Federal acres and in-place resources.

For recent regional leasing activity, see Section VI.

IV. COMPONENTS OF THE REGIONAL LEASING PROCESS

In April 1979, the Department of the Interior released the final programmatic EIS for the Federal Coal Management Program. The programmatic EIS assessed the national impacts of the coal program and related Federal coal policies. That statement covered all major national aspects of the preferred program and alternatives and assessed the effects of the alternatives in twelve specific coal regions. The programmatic EIS also examined the question of the need for Federal coal leasing to meet the Nation's future energy needs. Through the regional leasing process, the Federal Coal Management Program is primarily directed toward issuing new leases.

Land-Use Planning

The land-use planning process identifies areas acceptable for further consideration for coal leasing. These areas are identified after placing all lands in a planning area through four screens that are integral to the planning process.

1. Areas are eliminated from coal development consideration if they do not have coal potential.
2. Additional coal areas are eliminated if they are judged unsuitable, using the 20 unsuitability criteria.
3. Additional coal areas may be eliminated on multiple-use grounds if other resource values are determined to be superior to coal.
4. Surface owner consultation may also result in the elimination of lands from further consideration for leasing.

Activity Planning

Activity planning for coal in the planning area follows completion of the land use plan. Under the program, coal resource activity planning is conducted by the Bureau of Land Management and involves the delineation, ranking, selection, and scheduling of tracts for lease sale from the land identified in the land-use plan as areas acceptable for further consideration for leasing. Participation of State and local governments is actively sought during this phase. Before making a final decision, the Secretary consults with the Governors of the affected states.

Regional Leasing Levels

Regional leasing levels are established by the Secretary, who relies on the advice of affected State Governors in ensuring that leasing levels have properly considered social, environmental and economic impacts and constraints.

Lease Sale Procedures

Federal coal leases are sold by sealed bid. The bidder submitting the highest cash bonus bid for each tract is awarded the lease upon determination that the high bid constitutes fair market value for the lease and that the bidder is qualified to hold a Federal coal lease. Sale notices containing the minimum entry level bid for each tract are issued before each sale, and no bid below the minimum stated for each tract is considered further.

Prior to August 30, 1982, an oral auction followed the opening of sealed bids in most regional coal lease sales. Bidders submitting qualifying sealed bids were allowed to participate in the oral auction. The revised coal management regulations that became effective on August 30, 1982, eliminated the oral auction from the lease sale procedures. Bidders must now submit their best estimate of a tract's value in a sealed bid; they will not have an opportunity to raise their bids in an oral auction if they are outbid by a competitor.

Preference Right Lease Applications

A preference right lease application (PRLA) stems from a prospecting permit issued under section 2(b) of the Mineral Lands Leasing Act of 1920 (MLLA). Issuance of coal prospecting permits was discontinued by Secretarial Order #2952 of February 13, 1973. Congress repealed section 2(b) of MLLA upon passage of the Federal Coal Leasing Amendments Act of 1976. At the time of repeal, some 184 outstanding prospecting permits (now PRLAs) remained subject to adjudication by the Bureau.

A. BLM Processing Procedures and Schedules

In Natural Resources Defense Council, Inc., et al., vs. Berkland, 458 F. Supp. 925 (D.D.C. 1978), the court ruled that neither the Secretary's February 13, 1973, moratorium on the issuance of prospecting permits nor the Federal Coal Leasing Amendments Act of 1976 repealing section 2(b) of the Mineral Lands Leasing Act of 1920 restricted the rights of outstanding prospecting permit holders to obtain preference right leases. Since the PRLAs on file with the Bureau in 1978 were already 5 or more years old, the Secretary adopted a policy in the 1979 regulations that required the Bureau to process all outstanding PRLAs by December 1, 1984. This policy is contained in the regulations at 43 CFR 3430.3-1(a). State Directors establish schedules for processing individual PRLA's within the overall policy schedule.

The processing of PRLAs involves five basic steps:

1. The process begins with the applicant submitting an application for a preference right lease. The Bureau adjudicates the application to ensure that it has been filed prior to the

expiration date of the prospecting permit, properly signed, accompanied by the first year's rental fee ^{1/} and accompanied by data relative to the discovery of commercial quantities (initial showing).

2. The Bureau evaluates the applicant's initial showing data and either reaches a preliminary determination that the applicant has discovered commercial quantities or issues a decision rejecting the PRLA for lack thereof.
3. If the initial showing is certified, the PRLA is evaluated for land-use planning needs, and a processing schedule is developed. This step also requires the Bureau to prepare an environmental document and conduct, as necessary, public meetings and hearings. In the interest of efficiency, the Bureau may group PRLAs under a single environmental document or include them in a regional coal EIS. The land-use planning/environmental documentation step culminates in the preparation of recommended terms and conditions, bonding and diligence requirements.
4. The Bureau then requests the applicant to submit a final showing. This submission must contain vital financial and cost data to allow the Bureau to make a determination that the applicant has discovered commercial quantities of coal. Affirmative determinations establish that the applicant has a valid existing right to a coal lease. Final showings that do not show commercial quantities are rejected and no lease is issued.
5. As a final step, the Bureau issues coal leases where a valid right to such a lease is established.

B. Outstanding PRLAs

Records indicate that, of 184 applications on file as of September 30, 1977, 13 leases have been issued covering 23 PRLAs; 25 applications have been rejected or withdrawn by the applicants; and 136 remain in various stages of processing (see Appendix B, Table 5-a). The 13 leases issued (covering 23 PRLAs) encompass slightly over 58,200 acres and contain an estimated 361.4 million tons of recoverable coal (see Appendix B, Table 5-b). The PRLAs still being processed cover about 324,400 acres and contain an estimated 6 to 7 billion tons of recoverable coal (see Appendix B, Table 5-c). As of April 5, 1983, there was no coal production from any of the preference right leases.

1/ Required rental fee at the time of PRLA filing was \$.25/acre. Regulations now require a minimum of \$3.00/acre before a preference right lease is issued. The applicant must therefore remit an additional \$2.75/acre -- the difference between the two rental fees.

C. Relationship of PRLAs to Regional Sales

Expected production from the PRLAs is considered in the baseline in establishing the regional leasing level. Treatment of the PRLAs in the regional lease sale environmental statement depends on each individual regional situation.

Leasing By Application

In addition, emergency lease applications for areas within coal regions are considered in cases where Federal coal may be bypassed or where coal is needed to continue existing production or meet existing contracts. The application process can also be used in areas outside of the designated production regions where limited Federal coal ownership makes activity planning impractical. Land-use planning, NEPA compliance, and competitive lease sales are required in these situations.

Other Provisions

In addition, the Federal coal regulations contain provisions relating to exploration licenses; coal lease exchanges; lease transfers, modifications, and readjustments; royalties; mine plans; and diligent development requirements.

V. COAL PROGRAM REVIEW

The revised coal management regulations published in the Federal Register in July 1982 (43 CFR 3400 and 30 CFR 211) and clarified by revisions published in January 1983 accomplished three objectives:

- ° Elimination of excessive, burdensome, and counterproductive aspects of the coal program;
- ° Promotion of the "good neighbor policy" whereby the Department encourages State Government and public participation in decision-making insofar as is legally possible; And,
- ° Development of the publicly owned coal resources in a manner which is both environmentally sound and responsive to market demand.

Streamlining efforts began in February 1981 when interested State Governments and representatives of public interest groups, including energy companies, were asked by the Secretary to identify issues of concern. The analysis and study of the issues resulted in a number of changes to the Federal coal management regulations; a significant reduction in volume; expanded opportunities for State Government and public participation; earlier involvement of industry in the land-use planning process; and a stronger recognition of the importance of the publicly owned coal resources to economic health and national security.

The major changes from the July 1979 rules are presented below.

1979 RULES

1982/1983 RULES

A. Land-Use Planning

- | | |
|---|---|
| <ul style="list-style-type: none"> - No special call for coal resource information was issued during land-use planning. - Leasing consideration was confined to acres containing high or moderate coal development potential. | <ul style="list-style-type: none"> - BLM will issue a call for coal resource information during land-use planning to aid in early consideration of lands with coal potential. - The restriction on only considering lands with high or moderate development potential is removed allowing all areas with coal development potential to be considered. |
|---|---|

Purpose: More and better coal resource data earlier in the planning process and flexibility to meet the coal production needs of the region.

B. Leasing Levels

- Leasing targets were based on DOE's projections of national energy needs (demand for production, as well as other factors).
- Leasing levels will be based on various factors that may include demand for reserves, expressions of interest, advice from affected Governors, national energy needs, etc.
- The RCT recommended a single leasing target, usually a narrow range, to the Secretary.
- After receiving alternative leasing levels and a recommended leasing level from an RCT, the Secretary will set a leasing level in a broadly defined range.

Purpose: "Demand for reserves" represents a more market-oriented approach to approximating leasing levels than the "demand for production" approach with its fruitless attempts to closely match demand and supply.

C. Pre-Sale Consultation

- The Secretary consulted in writing with Governors in States where lease sales were proposed prior to making a coal lease sale decision.
- The Secretary consults in writing as before but also publishes in the Federal Register his reasons for accepting or rejecting their recommendations.

Purpose: Evidence of the Department's commitment to the good neighbor policy.

D. Unsuitability Criteria

- The rules established a series of 20 unsuitability criteria to be applied to lands being considered for leasing, to PRLAs, and to existing leases.
- Unsuitability criteria will no longer be applied to existing leases during land-use planning. The mandatory criteria will still be applied to these leases during mine plan review.

Purpose: Elimination of an unnecessary regulation, since the application on existing leases had nearly always been postponed until mine plan review.

E. Emergency Leasing

- Lease applicants had to meet certain criteria before being able to bid at emergency lease sales.
- The revised regulations eliminate the requirements that (a) a lease applicant have a mine in production 2 years before filing an application;

(b) a lessee be restricted to one emergency lease per operation; and
 (c) competition for leases sold under the emergency criteria be limited only to bidders meeting those criteria.

- State Governors were notified through the RCT of pending applications for coal lease sales.

- State Governors are doubly notified of pending lease-by-application actions -- through the RCT and separately.

Purpose: Following the intent of Congress that all coal be leased competitively; more evidence of the good neighbor policy.

F. Surface Owner Consent

- Surface owners determined to be unqualified under section 714 of SMCRA used the regular appeal channel through Interior Board of Land Appeals (IBLA).

- Surface owner appeals now go to the BLM State Director and then to the Bureau Director. Surface owners cannot appeal to IBLA.

Purpose: To speed up the decision process.

G. Alluvial Valley Floor Exchanges

- Alluvial valley floor fee coal exchanges were discretionary.

- Alluvial valley floor fee coal exchanges are mandatory rather than discretionary.

Purpose: Stronger recognition of the rights of lessees and landowners in areas located in alluvial valley floors. The changes make the regulations consistent with the court's decision in Texaco and NCA v. Andrus.

H. Lease Sales

- Competitive lease sales could be held by sealed bid only or sealed bid followed by oral auction.

- All competitive lease sales must be held by sealed bid only.

Purpose: The new approach has more assurance of the public's receipt of market value for the coal resource.

I. Diligence

- All nonproducing coal leases issued before August 4, 1976 (the effective date of the Federal Coal Leasing Amendments Act) had to be producing coal in commercial quantities by June 1, 1986.
- Pre-FLCAA lessees will have 10 years from the date of the first lease readjustment after August 4, 1976, to be producing coal in commercial quantities.

Purpose: To address the concerns that the 1976 rulemaking was a unilateral adverse change in fundamental lease terms (development obligations) and had a poor legal basis to be enforceable prior to readjustment of those leases. The 1986 deadline set forth in the 1976 regulations as the time requiring production for all pre-FLCAA leases may have resulted in many leases failing to meet diligence simply because the market could not absorb that much production by 1986. The Department would be left in the situation of cancelling leases which could not meet diligence in 1986 and then face a shortfall in Federal lease development in the early 1990's. Now, all leases will not be due to produce by 1986, but will be spread out between 1986 and 2005.

VI. COMPETITIVE LEASE SALES SCHEDULED SINCE JANUARY 1981

Beginning in January 1981 a total of 12 competitive coal lease sales have been held in four of the six coal regions. As a result, 42 tracts covering 70,664 acres and containing 2.02 billion tons of recoverable reserves have been sold. Specific results for each region are described below. Also see Appendix B, Tables 1-a, 1-b, 1-c, 2-a, and 2-b.

Southern Appalachian Coal Region

The first round of activity planning for the Alabama subregion of the Southern Appalachian Coal Region began in July 1979. Tract delineation identified 27 tracts, of which 19 were offered and 13 were sold. This first round sale covered 10,000 acres containing 46 million tons of recoverable reserves. The total bonus bid was \$1,051,281. Three sales were held in conjunction with the first round offerings in the Southern Appalachian Region. In the first sale 6 tracts were offered and sold. Approximately 5,000 acres were leased containing 37.7 million tons of recoverable coal reserves. In the two follow-up sales 7 tracts were sold containing 5,100 acres and 8.4 million tons of coal.

The call for industry expressions of interest for Round II leasing in Alabama closed in July 1982. Tracts were delineated by the end of October 1982, and tract profiles were available in January 1983. The 16 tracts delineated were ranked on February 9, 1983, by the regional coal team. On February 14, 1983, the leasing level of 42 to 117 million tons of Federal coal was established by the Assistant Secretary for Land and Water Resources. The EIS team is currently working on a draft which is scheduled to be filed by the end of June 1983. The sale is scheduled for May 1984.

Fort Union Coal Region

The first round sale of coal in the Fort Union Region is scheduled for July 1983. The tract delineation team identified 24 tracts. The Fort Union leasing level is .8 to 1.2 billion tons of in-place reserves, approximately .72 to 1.08 billion tons of recoverable reserves. A final EIS was filed with EPA in February 1983. At the Regional Coal Team (RCT) meeting on February 23, 1983, the RCT voted to recommend a lease sale schedule of 5 new production tracts and 7 production maintenance/by-pass tracts for a total of 713.6 million tons of recoverable reserves to be offered for lease. A second sale will be suggested with either 3 or 4 new production tracts. This second sale would occur in April 1984 and include 454 to 465 million tons of recoverable reserves. A Secretarial decision is expected in May 1983.

Powder River Coal Region

The first round of leasing in the Powder River Region resulted in two sales held April 28, 1982, and October 15, 1982. In the April sale 11 tracts received bids. One tract, Rocky Butte, was determined to have received a bid below fair market value, so the bid was rejected. However, the Rocky Butte tract was sold at the October sale along with the Fortin Draw tract. These two sales culminated the effort started early in 1980 with calls for expressions of industry interest on three planning areas in northeast Wyoming and planning areas in south-central Montana.

The Powder River Region second round coal lease sale is set for August 1984. A leasing level for this second round sale was established by the Assistant Secretary for Land and Water Resources on April 29, 1983. The draft EIS is scheduled to be filed with EPA about November 28, 1983, and the final EIS about April 4, 1984. On May 1, 1984, consultation letters will be sent to the involved Governors, the Department of Justice and the affected Indian Tribes with the Secretary's final decision on leasing scheduled for early July 1984.

Green River - Hams Fork Coal Region

First round activity planning resulted in the first regional sale under the Federal coal management program. A total of 11 tracts were sold in 4 sales, beginning in January 1981. All tracts offered were sold with a total of 35.7 million dollars bid. One tract in Wyoming, Red Rim, was held over for further study of reclamation potential and wildlife habitat under Unsuitability Criteria Number 15. A final decision on leasing this Red Rim tract will be made after a decision on an unsuitability petition on Federal and private surface is made. This petition decision is expected by late September 1983.

The second round regional coal lease sale is scheduled for June 1984. Twenty-four tracts, totaling 986 million tons of recoverable reserves, are being analyzed for the leasing level of 750 million to 950 million tons (recoverable). The Draft EIS is scheduled to be available in early August 1983, with the Final EIS filed with EPA in February 1984. Consultation with the Governors of Wyoming and Colorado and the Attorney General are scheduled to begin in March 1984, with the Secretary's final coal leasing decision in mid-May.

Uinta-Southwestern Utah Coal Region

The first round of coal leasing for this region resulted in 3 sales: July 1981, February 1982 and May 1982. Eleven tracts were offered, all in central Utah; 7 were sold. Approximately 19.6 million dollars were bid for the 7 tracts which contain 89.5 million tons of recoverable reserves.

The second round coal lease sale is scheduled for February 1984. A leasing level of 1.6 billion to 2.1 billion tons of in-place coal was established for the region in March 1982. This is approximately .6 to 0.8 billion tons of recoverable coal reserves. Twenty-seven tracts (two in west central Colorado, five in southern Utah near Alton, and 20 in central Utah) are analyzed in the draft EIS, scheduled to be available in early May 1983. The maximum alternative considered in the EIS is .72 billion tons. The final EIS is expected to be filed with EPA in mid-October 1983. Consultations with the Governors of Utah and Colorado, the Attorney General and the Secretary of Agriculture (over one-third of the coal in the proposed tracts involves the Forest Service) are scheduled for late October, with the Secretary's final coal leasing decision by early January 1984.

San Juan River Coal Region

The first round coal lease sale for the San Juan River Region is scheduled for December 1983. The leasing level of 1.2 billion to 1.5 billion tons of in-place resources was established in January 1982. ^{1/} This is approximately .66 to .83 billion tons of recoverable reserves. Thirty-nine tracts, totaling 1.1 billion tons of recoverable reserves, including eight by-pass tracts, are under consideration. All tracts are in the San Juan Basin of New Mexico. The draft EIS was filed with EPA on November 30, 1982; the final EIS is expected to be available in late July 1983. Consultation with the Governor, Indian Tribes and the Attorney General are scheduled for August 1983, with the Secretary's final decision on coal leasing expected in early November 1983.

^{1/} Based on an RCT recommendation, the Department is reconsidering the leasing level. The RCT recommended that the leasing level be reset at 800 - 900 million tons of in-place resources (44-50 million tons of recoverable reserves).

VII. PRODUCTION AND ROYALTY

Production and royalties collected from Federal coal leases are at a historic high. As of April 24, 1983, there were 627 Federal leases, containing 17.43 billion tons of recoverable coal reserves. Of these issued leases, 115 paid production royalties in FY 1983, producing over 104 million tons of coal in FY 1982. This production resulted in over \$61 million in production royalties (see Appendix B, Tables 3-a, 3-b, 3-c, and 3-d). In FY 1975 production was less than 44 million tons resulting in less than \$4.9 million in royalties. The increase from 1975 to 1982 is 135 percent in production and approximately 1,150 percent in royalties.

The compensation the Federal Government is receiving through royalty collections on a average per ton basis has also never been higher. In FY 1982 the Government collected almost 60 cents per ton from production from Federal coal leases, up from the 11 cents per ton collected in FY 1975.

In FY 1982, resource utilization, on tons produced per leased acre basis, was also at an all time high (see Appendix B, Table 6-a). This high ratio of resource utilization occurred in spite of the record high 84,151 acres leased in FY 1982. The concerns in 1970 of Government giveaways and long-term speculation, when utilization was less than 10 tons of production per leased acre, have persisted into 1983 even though utilization is over 112 tons of coal production for every acre under lease.

Production from Federal leases compared to total U.S. coal production has made marked increases in just the past few years (see Appendix B, Table 6-b). In Calendar Year 1981, Federal production was up almost 70 percent from 1980's Federal production, and represented 14 percent of the total U.S. coal production for Calendar Year 1981. In Calendar Year 1980, Federal production represented only 8 percent of total U.S. coal production.

The facts and figures from these tables indicate that leased Federal coal resources are not being misused; long-term speculation is not occurring. Utilization of the Federal resource and compensation paid the Federal government through royalties are at unprecedented levels. Although there are many positive indicators in the current resource utilization, this use is not a good indicator of the need for additional leasing. Section II, Subsection on "Market Demand", sheds some light on the misconceptions surrounding the need for future Federal coal leasing.

VIII. PROJECTIONS OF FUTURE LEASE SALES THROUGH FY 1985

A caveat necessary for a discussion of future sales deals with the anticipated sales estimates. The actual sales will depend on industry's response to the offerings. The actual tonnage sold could range from zero to the amount offered for leasing. The estimates provided here represent current BLM expectations. The actual results can be affected by changes in laws and regulations such as acid rain legislation or diligence, or by economic changes such as new railroads, rapid expansion of the economy, or drastic changes in the world oil market.

Anticipated Results

The projections for the FY 1983 and FY 1984 sales are presented in Appendix B, Tables 1-a and 7-a. The following is a brief discussion of those numbers. The discussion will primarily center on the leasing level, available resources and anticipated sales. The final decisions on how much coal resources to offer for sale has not been made in any of these regions. The availability of recoverable reserves for the next lease sale represents the coal in the delineated tracts that has not been discarded for environmental or other reasons during the lease sale activity to this point in time.

For the Fort Union lease sale, a leasing level of 0.72 to 1.08 billion tons of recoverable reserves was established. Approximately 1.9 billion tons of recoverable coal reserves have been delineated and are available for leasing. It is anticipated that about 0.6 billion tons of recoverable reserves will actually be leased. Sluggish growth in electricity demand and the impact on low oil prices on the synfuels industry will lower the demand for new reserves. These factors will have some effect on the anticipated sales in each of the regions, particularly in the low BTU Fort Union Region. Both of these factors, however, are subject to further changes.

In the San Juan River Region, the leasing level is 0.66 to 0.83 billion tons of recoverable coal reserves (which is expected to be reset at 0.44 to 0.50 billion tons) with 1.1 billion tons of recoverable reserves available. The Department anticipates selling about 0.35 billion tons. The sale figure will depend a great deal on industry's expectations of a future rail line into the San Juan Basin.

In the Uinta-Southwestern Utah Region the leasing level is 0.6 to 0.8 billion tons of recoverable reserves, with .72 billion tons of recoverable reserves available. The Department expects to sell approximately 0.8 billion tons of the available reserves. The demand for the high BTU, low sulfur coal in this region is still fairly high.

The Southern Appalachian regional leasing level is .042 - .117 billion tons of recoverable coal reserves. The Federal share of the coal reserves in that region is only a small fraction of the total coal reserves. About .12 billion tons is available for leasing. It is expected that about 0.10 billion tons will sell. This will depend a great deal on the effects the economy and coal exports are having on the private coal reserves in the region.

The Green River-Hams Fork regional leasing level is 0.75 - 0.95 billion tons of recoverable reserves, with 1.0 billion tons of recoverable reserves available. The Department currently expects to sell 0.6 billion tons. This is the second round sale for this region and new reserves will have to compete with already leased tracts.

The Powder River round II leasing level is 1.2 - 4.85 billion tons of recoverable reserves, with 7.3 billion tons recoverable reserves available. Currently, the Department expects to sell 1.8 billion tons but the uncertainties in Powder River are high due to its large market area and immense resources. These uncertainties are reflected in the large leasing level range adopted on April 29, 1983.

Appendix B, Table 7-a gives the anticipated bonus bids for each of these sales. The anticipated bonuses are based on the above sales estimates and the estimates for average high bonus bids derived from recent regional lease sales. If these expectations hold true, over \$280 million will be collected from these 6 sales. As with the actual amount sold, the bonus bids are greatly influenced by market conditions and expectations at the time of the sale.

Currently, there are approximately 17.4 billion tons of recoverable Federal coal reserves under lease. By 1995, of these 17.4 billion tons of leased reserves, 8.0 billion tons will be committed to production, 5.0 to 6.0 billion tons have little or no development potential and will eventually be returned to the Federal Government because of diligent development requirements (see next section on development prospects of existing Federal leases), and 2.4 to 3.4 billion tons will be available to compete for future contracts. Also by 1995, of the estimated 9.0 billion tons contained in PRLAs, 1.5 billion tons will be in production. The remaining 7.5 billion tons have little or no development potential and will be returned to the Federal Government because of diligent development requirements or will not make it through to lease issuance. These remaining tonnages, plus the anticipated 4.05 billion tons to be sold in FYs 1983 and 1984, will put 16 to 17 billion tons of Federal coal under lease (either in production or available for production). This is .5 to 1.5 billion tons less than what is under lease today.

Development Prospects of Existing Federal Leases

The following discussion is a brief overview of the development potential of existing Federal leases. An Office of Technology Assessment (OTA) report published in December of 1981 and individual studies conducted by the Department in each of the regions are the major sources of information for this evaluation. In conjunction with the establishment of the regional leasing levels (targets), the Department reviewed the productive capacity of private and leased Federal coal (including PRLAs) for each of the coal regions where a lease sale is scheduled.

The OTA review concentrates on the five active leasing regions in the West. The remaining leases are generally scattered with most of these in Oklahoma and Alabama. Appendix B, Table 8-a summarizes the development potential of the 488 leases in existence in 1980 in the five western regions. The information for this table was extrapolated from the OTA report.

In the active leasing regions about two-thirds of the pre-1981 leases are producing or have a good production potential by 1995. These leases contain almost three-fourths of the recoverable reserves (10.5 to 11.5 billion tons) in those regions with a projected 1991 capacity of 411.0 to 444.7 million tons per year. The Bureau's forecast of capacity from the new leases issued since 1980 in those regions is about 60 million tons per year.

Appendix B, Table 8-b summarizes the evaluation of the regional productive capacity conducted by the Department. The Alabama subregion (Southern Appalachian Region) is omitted due to the small quantity of Federal coal in the region. The productive capacity and corresponding production estimates are for the year 1995. The following is a region-specific discussion based on this survey and the OTA report.

Fort Union Region

The range of both the Department's capacity and production estimates found in Appendix B, Table 8-b reflects the uncertainty about synfuels. The nature of lignite (relatively low BTU content) precludes transporting it any significant distance. Thus there are significant coal resources that depend upon synfuel development. Mine mouth electricity generation will not make up the difference if synfuels do not develop by 1995. If synfuels are slow to develop, diligence may be a problem for a few existing leases and/or for additional leases.

Based on OTA estimates, approximately half the leased Federal coal resources, in 1980, have an uncertain or unlikely development future. Of the ten non-producing Federal leases in the region, OTA has categorized nine of them as having either uncertain or unfavorable development potential. The Department expects less than 200 million tons of the existing 550 million tons of recoverable reserves under lease to be in production by 1995. This is somewhat more pessimistic than the OTA estimates, reflecting

changing expectations since 1980. Of the 4 PRLAs in the region, none are expected to be in production by 1995.

Since completion of the OTA study, no new leases have been issued in the Fort Union Region. As Table 7-a in Appendix B indicates, the Department's expectation for the upcoming regional sale in Fort Union is to sell only 600 million tons of recoverable reserves. The low expectations for production and future leasing in the region reflect the general nature of Fort Union coal more than specific problems facing individual leases. Besides the low BTU value, high moisture content, and large concentrations of impurities, Federal coal in Fort Union rarely occurs in contiguous units. Many of the leases face reclamation problems, and with mine-mouth consumption of the lignite coal being the most economical, air quality standards will become harder to meet. Most future growth in demand for Fort Union coal will follow the fortunes of the synfuels industry. Given today's conditions the future is not particularly bright for this industry.

The Department estimates Federal mine capacity by 1995 is about 32 million tons per year. The Department's estimate for total capacity is 40 million tons per year by 1995. The production forecast is 30 to 50 million tons per year by 1995. The Federal share of the total resources in the region is estimated to be 36 percent. Based on analysis completed by the Department, the demand for additional Federal reserves is 300 to 600 million tons of recoverable resources.

Powder River Region

The Powder River region presents problems just because of the volume of coal involved and its low cost to produce. Its desirability as steam coal makes this the critical region as a source for that market. The production in the Powder River region is very much affected by national economic trends as well as regional trends. The recent recession has reduced the pressure for increasing the supply of coal in the region. Some of the forecasts showing immense increases in production in Powder River assumed large increases in the demand for electricity, synfuels, and exports simultaneously. While rapid economic growth will spur demand for energy in all sectors, economic growth depends a great deal on oil prices. If oil prices are low, then economic growth will be rapid, but the demand for synfuels will slacken while demand for electricity will increase. Low oil prices also mean lower transportation costs. As demand for Powder River coal depends very much of transportation costs, low oil prices will increase the demand for the region's steam coal. Thus, low oil prices will increase the demand for Powder River steam coal, but lower the demand for coal as a synfuel feedstock.

The OTA estimate (Appendix B, Table 8-a) is for most of the Federal leases to have a favorable development potential in the Powder River Region. Approximately 11 leases did not receive a favorable assessment. However these contain a relatively low amount of Federal coal (700 million tons of recoverable reserves). The major problem identified with these leases is their location on alluvial valley floors. Since the OTA report

was completed, 11 new leases have been issued. These new leases contain approximately 1.3 billion tons of recoverable coal reserves. The Department has determined that all these new leases have favorable development potential for 1995. However, the Department expects that 1.0 to 1.5 billion tons of leased reserves and as much as 5.0 billion tons of PRLA reserves have little or no development potential by 1995. The major change from the OTA estimate reflects changed expectations for the syn-fuels industry. The Department has also estimated that, by 1995, the total capacity for the region will be 343 million tons per year. The anticipated results for the upcoming Powder River sale are for approximately 1.8 billion tons of recoverable reserves to be leased (see Appendix B, Table 7-a).

This additional tonnage will increase the productive capacity of the region by another 50 to 70 million tons per year. As with the leases issued since 1980, these additional leases should have favorable production potential.

Appendix B, Table 8-b also includes production forecasts for the region. The production forecast for the Powder River Region is estimated at 215 million tons per year. The forecasts are based on analysis done by the Department, with the National Coal Model as the primary source of information. Market analysis done in conjunction with the leasing level process indicates a need to lease an additional 1.0 to 3.9 billion tons of recoverable reserves. The anticipated lease sales for the regions are for 0.8 billion tons of recoverable reserves.

Green River-Hams Fork Region

The uncertainty in the capacity forecast for this region demonstrates the marginal nature of some of the existing leases in this region. Due to transportation problems, environmental conflicts, or high mining costs these leases may not develop. In the OTA report, 101 Federal leases containing 2.0 billion tons of recoverable reserves were analyzed. Since 1980, 17 new leases have been issued in the region, containing approximately .6 billion tons of recoverable reserves. Approximately half of the tonnage leased since the OTA report was completed were from PRLAs.

The OTA study (Appendix B, Table 8-a) included 28 leases in the uncertain and unlikely category containing .84 billion tons of recoverable reserves. With the addition of the 17 new Federal leases, the figure in the uncertain and unlikely category may be as high as 1.0 billion tons. The major problem facing these unfavorable leases is that they are relatively small, isolated tracts with limited resources. Approximately half the PRLAs are not expected to be issued or, if they are issued, are not likely to come into production by 1995.

The Department has estimated the total productive capacity for the region as 54 million tons per year by 1995 (Appendix B, Table 8-b). The production forecast is estimated to be 50 to 70 million tons per year. The Department's market analysis indicates a need to lease an additional .2 to 1.1 billion tons of coal in the region. The anticipated tonnage that will sell in the Green River-Hams Fork Round II sale is .6 billion tons of recoverable reserves.

Uinta-Southwestern Utah Region

The region contains two distinct types of coal. The Uinta resource is very high BTU, low sulfur coal that in general is in high demand. The southwestern Utah resource is much lower BTU and has many transportation problems not encountered with the Uinta coal. Of the 117 Federal leases (Appendix B, Table 8-a) categorized as having uncertain or unlikely development potential, 96 are located in the southwestern Utah portion of the region. Almost 1.8 billion tons of recoverable reserves are contained in those 96 Federal leases that are not expected to be developed.

High mining costs, lack of transportation facilities, and potential impacts on nearby national parks, monuments, and other scenic and archeological resources are major obstacles which greatly reduce the likelihood or desirability of many of these leases' being developed. Over 534.5 million tons of recoverable reserves in 61 leases are located on the rugged and isolated Kaiparowits Plateau. Production from these leases is uncertain due to the lack of rail service and established communities, high cost of underground mining, and potential environmental conflicts from development.

Since 1980, an additional 170 million tons of Federal coal has come under lease. Most of these leases are expected to have very favorable development potential. Of the 4.5 billion tons of Federal coal under lease in the region, over 3.1 billion tons are not expected to be in production by 1995. Of the estimated 1.0 billion tons of reserves held in pending PRLAs, none are expected to be producing by 1995.

For 1995, the total productive capacity is estimated at 49 million tons per year and the production forecast is 42 to 60 million tons per year. This high level of uncertainty is reflected in the demand for coal reserves estimate, which ranges from zero to 2.2 billion tons of recoverable reserves. The anticipated sale results (Appendix B, Table 7-a) are for 0.6 billion tons to be sold, all in the Uinta portion of the region.

San Juan River Region

This region also faces transportation problems, but not as severe as in Uinta-Southwestern Utah. No rail service exists into the San Juan Basin where much of this region's best coal is available. Rail access to the basin would expand and market base for basin coal to the large Texas market and other parts of the southwest. The estimated capacity and production both reflect this uncertainty. The demand for additional leasing mostly depends on the likelihood of rail lines into the basin. There are plans to offer this rail service, however, nothing is being developed at this point.

The OTA report identified six leases containing 40 million tons of coal as uncertain or unlikely for development. Since 1980, two new leases have been issued containing 1.2 million tons of recoverable reserves. The major unknown in the region is the 1.75 billion tons of recoverable reserves contained in the pending PRLAs. Most of the PRLAs are considered to have favorable development potential. However, the development of these PRLAs also depends on the availability of a railroad into the basin.

The Department's total productive capacity and production forecast for the region is based on the assumption that railroad service will eventually be available to the basin. The total capacity for 1995 is 71 million tons per year. The corresponding production forecast is for 40 to 60 million tons per year. If the railroad is not built, the coal demand forecasted for this region will shift to other regions. This shift will, however, entail higher costs which will be passed on to the consumer.

Based on the market analysis done in conjunction with the leasing level process, the demand for coal reserves in the San Juan Region is from 0.3 to 1.5 billion tons of recoverable reserves. The anticipated results from the December 1983 sale is for approximately .35 billion tons of Federal coal to be leased.

Regional Summary

As can be seen by this region-specific summary, each region is unique with its own problems. Fort Union coal reserves are generally constrained to on-site uses. The two major uses are on-site electrical generation and synfuels; both of which are not expected to grow rapidly in the near future. Powder River coal leases are the most inexpensive to produce, but that advantage can be adversely impacted by rising transportation costs. If transportation costs stay down, it can be expected that Powder River coal will eventually capture a much higher portion of the Nation's steam coal market. Green River-Hams Fork leases have a number of independent problems, including transportation, environmental conflicts, high mining costs, and tracts with limited coal resources. This is unlike the Fort Union and Powder River leases which have problems that effect essentially all coal in that region. The Uinta coal leases contain high BTU, low sulfur,

coal that is in relatively high demand. Southwestern Utah coal leases are not a factor in the coal market due to numerous problems. Most all Uinta-Southwestern Utah coal leases have fairly high mining costs associated with them. The major problem facing the San Juan leases is the lack of adequate transportation. The potential in the San Juan Basin is very great if a railroad is built.

Demand for Additional Coal Reserves

By simply subtracting the production forecasts from the regional capacities presented in Appendix B, Table 8-b, the question of the need to lease additional coal reserves may be raised. The simple mathematics does not result in the demand estimates presented in the third column (the leasing levels in Appendix B, Table 1-a) nor the anticipated sales figures in Appendix B, Table 7-a. The reasons are many and are presented throughout this report.

Paramount among the factors that create the differences between apparent need and projected demand is the Department's desire to allow the market place to address industry's demand for Federal coal reserves and not the Government's projections of production goals (see Section II, "Federal Coal Leasing"). In the same section is a full discussion of the pitfalls of long-range projections of the national and regional coal production needs. Any inaccuracies in those projections that lead to underleasing have very high costs to the consumer. The Department also recognizes that a demand for the coal industry exists to hold an inventory of coal reserves in a non-producing status. Each company faces a multitude of unknown resource needs. By having uncommitted coal resources on hand, each company has greater flexibility in dealing with these unknowns.

The Department, along with the General Accounting Office, the Council on Wage and Price Stability, the Department of Energy, and the Department of Justice, have recognized the need to provide sufficient supplies of coal to ensure competition within the industry. Leasing levels that exceed the minimal level required to meet the production needs allows for greater competition for utility coal contracts and increases the opportunities for new entries into the industry.

The Department wants to give industry the opportunity to supplant less economically and environmentally desirable coal leases that are currently under lease with new more desirable coal leases. Many of these older leases were issued before the current environmental laws were enacted. New leases that would be replacing these older leases have gone through multiple environmental screens and reviews.

Any new coal leases that replace unadjusted old leases will also net a significant amount of additional revenues. Besides the bonus bid that would be collected, the royalty and rental rates are significantly higher

on the new coal leases. As discussed in Section VII ("Production and Royalty"), the royalties collected in recent years have skyrocketed due to this change.

The idea behind the projected demands in Table 8-b, Appendix B, and the leasing levels in Appendix B, Table 1-a are to help guide the Department in how much coal should be offered for lease. A major key to the Federal Coal Program is to provide industry with the opportunity to lease coal. What is offered for lease is probably less than the maximum leasing level; the quantity of coal leased is probably less than what is offered; and the number of leases that go into production is probably less than what is leased. At each step, the market is not adversely constrained by previous Department decisions.

IX. PROPOSED LEASING MORATORIUM

Recently, there have been suggestions to instate a moratorium on Federal coal leasing. Under one proposal, the Department would be prohibited from issuing coal leases within a one-year timeframe. Not only would this prevent the issuance of leases resulting from regional coal lease sales, but also it would prohibit emergency lease sales, leasing of preference right lease applications, and coal lease exchanges.

A prohibition against the issuance of emergency leases could result in bypassing Federal coal that adjoins existing coal mines or the closure of existing mines that run out of reserves and are prevented from leasing adjacent Federal reserves. This would be an economic waste of a valuable resource that may never be mined thereafter, as bypassed coal usually is of little value because it is no longer of logical mining size. Additionally, a prohibition against the issuance of exchange coal leases will delay congressionally-authorized or mandated (Public Laws 95-554, 96-401, 96-475) coal lease exchanges.

Prohibiting the issuance of leases under the regional coal leasing program will have major detrimental impacts:

- ° Severe doubts about the future availability of Federal coal will undermine the investment structure of coal, energy transportation, steel, and related basic manufacturing industries. More importantly, a leasing moratorium will result in a loss of public and industry confidence in the ability of the Federal Government to meet the needs of the coal consumers. A leasing moratorium imposed by the Department in 1971 set off a series of events that effectively prevented Federal coal leasing for 10 years. There is no way of knowing what "ripple" effects a 1-year moratorium would have beyond the 1 year, but it clearly would be extensive and cannot be assessed merely by focusing on the events now scheduled for that 1 year.
- ° Revenues to States and the Federal Government will decline. This too will not be limited to just the 1 year, as even with a resumption of a coal program, it will take some time for confidence to be restored to assure active participation. The Department anticipates high bids totaling more than \$280 million from regional coal leasing between now and the end of Fiscal Year 1984. A delay in these sales will result in at least a corresponding delay in receipt of this money, of which 50 percent is returned to the State in which the leases are issued, 40 percent goes into the Federal Reclamation Fund, and 10 percent is returned to the Treasury.
- ° Companies seeking to enter the western coal market would be forced to purchase existing leases on the assignment market rather than acquire new leases. The windfall profits from such lease assignments would go to the current lessees rather than to the Federal

Government. This was a major criticism in the House Appropriations Committee report on the Federal coal program. Similarly, windfall profits would accrue even to high sulfur eastern coal with the decreased availability of western coal. Companies would accelerate development of the existing leases because of uncertainty over new leasing.

- ° Many existing leases were issued with little or no environmental review or requirements and with low royalty rates. Accelerated development of these leases could lead to adverse environmental impacts and would reduce royalty revenues compared with those of new Federal leases. Once money was committed to development of these leases, development could not be redirected to new leases if and when regional Federal coal leasing is resumed, and thus both environmental and royalty consequences would extend far beyond 1 year.

A moratorium will achieve results that are opposite to those intended. It will foster the notion of deteriorating support for the basic industries of this Nation while increasing consumer prices, increasing windfall profits to the selected few, and increasing environmental degradation due to accelerated development of current leases with inadequate environmental analysis and higher sulfur content.

All the world will see the United States once again in confusion over its energy program. A moratorium that is clearly both anti-environment as well as anti-consumer has no positive features. It offers only delay, more study, and substantial reversals of bipartisan progress of the past several years on consumer, environmental, and energy fronts. These consequences are far beyond the near term concerns regarding some of the mechanical features of the leasing process and do not reflect the many improvements to that process that have occurred during the past year. The Federal Government's ability or inability to be a stable participant in the coal market is a key factor in determining the extent to which coal will supplant other energy sources, specifically high priced imported oil.

X. CONCLUSION

The current Federal Coal Management Program has evolved over the course of a decade and responds to direction from the three branches of the Federal Government. With this program, coal -- after 10 years of virtually no leasing -- is now being leased to meet the market demand for coal reserves in a way that by design, includes:

1. Sound economics;
2. Environmental protection;
3. Coordination, consultation, and cooperation with State Governments;
4. Public participation;
5. National security factors;
6. National economic and employment considerations; and
7. Consumer protection measures.

This type of program is necessary to manage the Nation's coal resources because of the Federal Government's monopoly in the west -- where there is a growing dependence on Federal coal to meet future energy needs. The accelerated leasing program undertaken in 1981 allows environmentally preferable coal leases to compete with older leases that pre-date environmental laws -- a necessity if the Western States are to maintain their environmental standards.

Fostering competition as well as reducing speculation and windfall profits also results from the leasing program. This is particularly significant in order to avoid the situation that the Department faced in the early 1970's -- a considerable amount of tonnage under lease with only limited production to benefit the consumer and the Nation. Under the current leasing strategy, industry and utility companies can shop around for competitively priced coal and ultimately reduce the end price to consumers.

By developing our domestic coal resources, jobs are provided in businesses that are both directly and indirectly associated with coal mining. It also reduces the Nation's dependence on imported oil and helps American businesses compete in world markets.

Building on criticism from several sources, the Department moved away from the previous production goal approach that tried to match leased reserves to production. In its place, a leasing level process is used that recognizes that there is a demand for reserves beyond that which is required merely to meet production projections. Accordingly, enough environmentally and economically viable tracts are offered to meet the demand for reserves, allowing the market to decide which tracts are ultimately developed.

Not all the potential coal in a region is offered for lease. Through a tiered process (land-use planning, activity planning, lease sale, and mine plan stages), areas are eliminated until the most environmentally, socially, and economically acceptable tracts are put up for sale. Of those tracts offered, the bonus bidding procedure is the best method for deciding who actually gets the tracts offered for sale.

In keeping with the market orientation, price is believed to be the best indication of demand. Although some have concluded that the price of coal is declining, in actual fact, the price (as reflected in the bonus bids received) as a percentage of selling price of mined coal in a region has remained relatively constant (0.5 - 0.7 percent).

While the Federal Government receives compensation in the form of bonus bids for coal tracts, the most efficient means of generating revenues for the Treasury comes in the form of royalty payments on the value of coal actually produced. Over the past several years, there has been a noticeable increase in coal production from Federal leases (e.g., Federal coal production was up 70 percent from CY 1980 to CY 1981.) Thus, the amount of royalties payable to the government have significantly increased and, because of the 50-50 sharing rule, the States as well as the Federal Treasury benefit.

Another key reason for continued leasing relates to the diligence standards and environmental acceptability of the older coal leases (i.e., those that pre-date recent environmental laws). The newer leases are generally more economically efficient to develop and have passed through a series of screens to ensure their environmental quality. New leasing makes both good economic sense and good environmental sense.

Additionally, new and old leases face diligent development requirements. Many of these leases could revert to the government for failure to meet diligence, thus, leaving a gap that can only be filled through continued leasing.

These are strong and convincing reasons for the continuation of leasing Federal coal. It is the Department's policy to lease to meet the market demand for coal reserves so that coal is available for development when it is needed most. Leasing through the Federal Coal Management Program assures the Nation that the United States will not be caught short in the event of another oil supply crisis similar to the 1973-74 oil embargo. In essence, Federal coal is the Nation's insurance policy for meeting future energy demands.

APPENDIX A

Comments from Other Agencies and Departments
Concerning Federal Coal Leasing Levels

1. Department of Justice, in a January 23, 1981, letter to Wyoming State Director, BLM, concerning the Powder River I leasing target:

" . . . The present approach of attempting to match leasing to future coal demand on a regional basis produces leasing levels that are dangerously low [and] poses a serious risk of insufficient leasing which, especially in the Powder River region, would have serious competitive and economic efficiency consequences for the Nation with the inevitable result of increased coal prices."

2. Department of Energy letter to Wyoming State Director, BLM, on January 17, 1981, concerning the Powder River I leasing target:

"We are very concerned with the way these production goals are used in establishing a leasing target for the 1982 Powder River region sale. Since we believe that the cost of underleasing Federal coal is substantially greater than the cost of overleasing, we strongly suggest moving toward the high production goal for the Powder River region . . ."

3. Council on Wage and Price Stability letter of January 26, 1981, to the Wyoming State Director, BLM:

" . . . DOI's methodology . . . severely limits - without adequate justification - the quantity of Federal coal that can be offered in a given sale. [COWP's staff report] recommends that coal leasing targets be based on producer's demand for coal reserves rather than on forecasts of end-use demand."

4. The General Accounting Office, in its Report to the Congress of August 22, 1980 (A Shortfall in leasing coal from Federal Lands: What Effect on National Energy Goals?), criticized the leasing target for the January 1981 lease sale in the Green River-Hams Fork Region of Colorado and Wyoming.

"Our analysis indicates that Interior's leasing target should be about three times greater than it is . . . If Interior does not update its assumptions and improve its target setting process, the risk also is increased of not leasing sufficient coal to satisfy national energy needs." (Page 58 of GAO Report EMD 80-87.)

The above comments were highly critical of the leasing target methodology developed by the previous Administration. Explicitly and implicitly, the GAO, COWPS, DOJ and DOE support the current leasing level approach that attempts to satisfy the market demand for reserves.

APPENDIX B

TABLES

TABLE 1-a
FUTURE LEASE SALE IN FY 1983 AND FY 1984
 (RECOVERABLE RESERVES)

Region	Sale Date	Leasing Level (Billion Tons)	Expression of ^{1/} Leasing Interest (Billion Tons)	Reserves Available ^{2/} for Leasing (Billion Tons)
Fort Union	July 1983	.72 - 1.08	2.0 - 2.5	1.9
San Juan River	December 1983	.66 - .83 ^{3/}	1.6 - 2.5	1.5
Uinta-SW Utah	February 1984	.6 - .8	3.8	.72
So. Appalachian	May 1984	.042 - .117	-	.12
Green River/ Hams Fork	June 1984	.75 - .95	0.9 - 1.5	1.0
Powder River	August 1984	1.2 - 4.85	2.5 - 5.9	7.3

^{1/} Tonnage figures should be viewed as rough estimates. Many expressions of interest received by the Department do not indicate exact tonnage the company is interested in leasing.

^{2/} Tonnage figures are estimates of the reserves that are available for leasing following tract delineation.

^{3/} The San Juan River Regional Leasing Level is currently under study for revisions downward to .44 to .5 billion tons of recoverable reserves.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing.

TABLE 1-b

COAL ACTIVITY PLANNING COMPLETION DATES

COAL PRODUCTION REGION	EXPRESSION OF INTEREST	TRACT DELINEATION	SITE SPECIFIC ANALYSIS	LEASING LEVEL	RCT TRACT RANKING	DRAFT EIS	FINAL EIS	RCT LEASING RECOM.	SECRETARY DECISION DOCUMENT	SALE DATE
<u>FORT UNION</u> Round I	--	01/82	01/82	12/81	01/82	08/82	02/83	02/83	05/83	07/83
<u>GREEN RIVER</u> Round I	--	--	--	--	--	--	--	--	--	10/81 & 04/82
Round II	05/82	09/82	12/82	01/83	01/83	07/83	02/84	02/84	05/84	06/84
<u>POWDER RIVER</u> Round I	--	--	--	--	--	--	11/81	12/81	02/82	04/82
Round II	08/82	11/82	03/83	04/83	05/83	11/83	03/84	04/84	07/84	08/84
<u>SAN JUAN</u> Round I	--	03/82	04/82	03/82	04/82	11/82	07/83	07/83	11/83	12/83
<u>SOUTHERN APPALACHIAN</u> Round I	--	--	--	--	--	--	--	--	--	12/81 & 09/82
Round II	08/82	10/82	01/83	03/83	02/83	05/83	10/83	11/83	03/84	05/84
<u>UINTA-SOUTHWESTERN UTAH</u> Round I	--	--	--	--	--	--	--	--	--	02/82 & 05/82
Round II	02/82	04/82	07/82	03/82	07/82	05/83	10/83	10/83	01/84	02/84

NOTE: The dates after 9/82 are for planning purposes only.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing.

TABLE 1-c
REGIONAL COAL LEASE SALE SCHEDULE

	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FY 1982	GR #1c		APP #1b		UI #1b		PR #1 GR #1d	UI #1c				APP #1c
FY 1983	PR #1b									FU #1		
FY 1984			SJR #1		UI #2			APP #2	GR #2		PR #2	
FY 1985												FU #2
FY 1986		PR #3									SJR #2	
FY 1987												GR #3 UI #3

Federal Coal Regions

GR - Green River Hams Fork
 UI - Uinta-Southwestern Utah
 PR - Powder River
 FU - Fort Union
 APP - Southern Appalachian, Alabama Subregion
 SJR - San Juan River

Lease Sale

1 or 1a - Initial first round
 lease sale
 1b, 1c - First round
 follow-up sale
 2 - Initial second round sale
 3 - Initial third round sale

NOTE: The sale schedules during calendar years 1983 through 1987 are tentative and are for planning purposes only. No final decision is made to hold a regional lease sale or to schedule when such a sale is to be held, until completion of all planning and environmental assessment work for the regional proposal.

TABLE 2-a
TRACTS SOLD IN ALL REGIONAL SALES

(January 1981 Through October 1982)

REGIONS	DATE OF SALE	Number of Tracts	ACRES	TOTAL RECOVERABLE RESERVES (In Mil. Tons)	TOTAL HIGH BONUS BIDS	AVERAGE HIGH BONUS BID (DOLLARS/TON)
Green River-Hams Fork	January 1981	6	11,283	87.9	\$1,730,277	.020
	April 1981	2	5,572	64.3	9,013,430	.140
	October 1981	1	5,974	62.7	1,792,227	.029
	April 1982	2	4,262	112.4	23,164,125	.206
	Total to Date	11	27,091	327.3	\$35,700,060	
Powder River	April 1982	10	16,554	1,089.6	\$43,484,434	.040
	October 1982	2	5,176	471.6	23,689,632	.050
	Total to Date	12	21,730	1,561.2	\$67,179,066	
Southern Appalachian	June 1981	6	5,040	37.8	\$180,537	.005
	December 1981	4	3,629	7.3	623,605	.023
	September 1982	3	1,520	1.1	247,114	.225
	Total to Date	13	10,189	46.2	\$1,051,236	
Uinta Southwestern Utah	July 1981	5	10,854	79.7	\$14,200,410	.178
	February 1982	1	160	2.3	158,400	.069
	May 1982	1	640	7.5	5,216,000	.695
	Total to Date	7	11,654	89.5	\$19,574,810	
Total All Regions	To Date	43	70,664	2,024.2	\$123,505,192	

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing Automated Coal Lease Data System, September 30, 1982.

TABLE 2-b
 BONUS BIDS FROM ALL REGIONAL SALES
 (JANUARY 1981 THROUGH OCTOBER 1982)

Regions	Total High Bonus Bid (Dollars)	Acreage	Recoverable Reserves (Million Tons)	Average BTU Per Pound	Average Price Per Ton of Coal (Dollars)
So. Appalachian	1,051,256	10,189	46.2	12,500	30.00
Green River - Hams Fork	35,700,059	27,091	327.3	10,250	20.00
Powder River	67,179,066	21,730	1,561.2	8,250	7.50
Uinta-SW Utah	<u>19,574,810</u>	<u>11,654</u>	<u>89.5</u>	12,300	28.00
Total All Regions	123,505,192	70,664	2,024.2		

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing, Automated Coal Leasing Data System, September 30, 1983, and Coal Week, McGraw-Hill, Inc., Washington, D.C., February 7, February 14, February 28 and March 7, 1983, Vol. 9 No. 7 through No. 10.

TABLE 2-c
ANALYSIS OF HIGH
BONUS BIDS FROM ALL REGIONAL SALES
(JANUARY 1981 THROUGH OCTOBER 1982)

Region	Total High Bonus Bid (Dollars)	Dollar/Acre	Cent/Ton	Average High Bonus Bid Cent/Million BTU 1/	Percent of Coal Price 2/
So.					
Appalachian	1,051,256	103	2.29	.092	.076
Green River- Hams Fork	35,700,059	1,318	10.9	.531	.545
Powder River	67,179,066	3,092	4.3	.261	.573
Uinta-SW Utah	<u>19,574,810</u>	1,680	21.88	.888	.775
Total All Regions	123,505,192				

1/ Average BTU/lb. x 2,000 = BTU/ton divided by 1,000,000 = MM BTU/ton divided by cents/ton = cents/MM BTU.
2/ Cents/tons divided by average mine mouth selling price per ton of coal = percent of coal price.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing, Automated Coal Leasing Data System, September 30, 1983, and Coal Week, McGraw-Hill, Inc., Washington, D.C., February 7, February 14, February 28 and March 7, 1983, Vol. 9 No. 7 through No. 10.

TABLE 3-a
 PRODUCING FEDERAL COAL LEASES
 BY STATE: FY 1982

State	Leases	Acreage	Coal Production (Tons)	Production (Value(s))	Royalty (Value(s))
TOTAL	111	204,252	104,429,888	\$1,546,321,713	\$61,062,456
Alabama	1	2,388	2,178	92,160	3,686
Colorado	29	28,282	9,157,131	210,369,532	13,170,861
Montana	10	23,455	25,194,856	313,433,868	8,782,544
New Mexico	4	10,031	4,847,393	92,731,433	7,841,138
North Dakota	4	4,721	1,190,079	9,984,697	745,253
Oklahoma	4	2,936	245,676	10,563,890	1,110,490
Utah	32	54,694	7,892,365	209,078,609	5,833,291
Washington	1	241	65,574	804,322	13,115
Wyoming	26	77,504	55,834,635	699,263,202	23,562,078

NOTE: The statistics for FY 1982 represent production and royalty reported during FY 1982 and adjustments made during FY 1982 for prior periods. The FY 1982 royalty management statistics may not represent actual production in FY 1982 or the royalty accrued on that production due to adjustments for previous years. This data is unpublished.

SOURCE: U.S. Department of the Interior, Minerals Management Service,
 Royalty Management Office.

TABLE 3-b
 PRODUCING FEDERAL COAL LEASES
 BY REGION: FY 1982

Region	Leases	Acreage	Coal Production (Thousand Tons)
<u>TOTAL</u>	111	204,252	104,430
So. Appalachian	1	2,388	2
Fort Union	5	5,441	1,324
Green River- Hams Fork	27	53,758	15,090
Powder River	21	58,037	72,666
San Juan River	5	10,191	4,935
Western Interior	4	2,936	246
Uinta-SW Utah	47	71,259	10,099
Other	1	241	65

NOTE: Details may not add to total due to rounding. The statistics represent production and royalty reported during FY 1982 and adjustments made during FY 1982 for prior periods. The FY 1982 royalty management statistics may not represent actual production achieved in FY 1982 or the royalty accrued on that production due to adjustments for previous years. The data is unpublished.

SOURCE: U.S. Department of the Interior, Minerals Management Service, Royalty Management Office.

TABLE 3-c
 FEDERAL COAL PRODUCTION, PRODUCTION VALUE, AND ROYALTY VALUE
 FISCAL YEARS 1973-1982

<u>Fiscal Year</u>	<u>Coal Production (Thousand Tons)</u>	<u>Production Value (Thousand Dollars)</u>	<u>Royalty Value (Thousand Dollars)</u>
1973	24,247	93,307	\$4,044
1974	32,139	140,307	5,535
1975	43,590	224,947	8,335
1976	52,491	338,312	10,949
1977	50,197	430,230	9,718
1978	58,781	550,712	12,321
1979	59,141	699,234	16,119
1980	71,958	862,817	24,569
1981	94,645	1,198,764	40,280
1982	104,430	1,546,322	61,062

SOURCE: U.S. Department of the Interior, Geological Survey, Federal and Indian Lands Coal, Phosphate, Potash, Sodium, and other Mineral Production, Royalty Income, and Related Statistics, June 1981
 For data for FY 1973-1975. Data for succeeding Fiscal Years is unpublished and is from Minerals Management Service, Royalty Management Office.

TABLE 3-d
 ROYALTY REVENUES FROM FEDERAL COAL LEASES,
 BY STATE: 1965 TO 1982

STATE	FY 1965	FY 1970	FY 1975	FY 1980	FY 1981	FY 1982
<u>TOTAL</u>	\$777,551	\$1,069,935	\$4,857,423	\$24,568,692	\$40,280,418	\$61,062,456
Alabama	NA	106	24,394	31,669	0	3,686
Alaska	52,244	41,146	51,438	0	0	0
Colorado	150,405	303,405	364,035	7,115,564	11,952,875	13,170,861
Kentucky	36,193	NA	126,643	10,830	0	0
Montana	16,826	11,027	1,219,863	2,065,885	3,922,771	8,782,544
New Mexico	62,304	1,347	242,716	1,472,900	3,440,772	7,841,138
North Dakota	36,567	135,997	60,013	272,272	101,677	745,253
Oklahoma	23,695	54,053	43,199	826,942	1,009,820	1,110,490
Utah	271,375	299,547	456,480	3,968,073	5,094,133	5,833,291
Washington	NA	NA	18,851	0	0	13,115
Wyoming	125,790	222,805	2,249,791	8,804,557	14,758,370	23,562,078

NA: Not Available

NOTE: Details may not add to total due to rounding. The statistics for FY 1982 represent production and royalty reported during FY 1982 and adjustments made during FY 1982 for prior periods. The FY 1982 royalty management statistics may not represent actual production achieved in FY 1982 or the royalty accrued on that production due to adjustment for previous years. This data is unpublished.

SOURCE: U.S. Department of the Interior, Minerals Management Service, Royalty Management Office.

TABLE 4-a
 NUMBER OF LEASES, ESTIMATED RECOVERABLE RESERVES
 BY STATE: APRIL 25, 1983

State	Number of Leases	Total Recoverable Reserves (million tons)
<u>TOTAL</u>	627	17,431
Alabama	15	35
Colorado	142	1,823
Kentucky	5	11
Montana	26	1,470
New Mexico	29	466
North Dakota	19	256
Oklahoma	48	213
Utah	216	3,699
Wyoming	120	9,444
Other <u>1/</u>	10	14

1/ Due to confidentiality requirements, an aggregate figure is given for all reserve data for States with less than three leases. Other includes Alaska, California, Oregon, Pennsylvania, Virginia, and Washington.

NOTE: Details may not add to total due to rounding.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Operations, Quarterly Mining Report, April 22, 1983, Division of Solid Mineral Leasing, and the Automated Coal Lease Data System, September 30, 1982.

TABLE 4-b

NUMBER OF LEASES, ESTIMATED RECOVERABLE RESERVES
BY REGION: APRIL 25, 1983

Region	Number of Leases	Total Recoverable Reserves (million tons)
<u>TOTAL</u>	627	17,431
So. Appalachian	15	35
Fort Union	22	546
Green River-Hams Fork	120	1,677
Powder River	91	9,898
San Juan River	28	467
Uinta-Southwestern Utah	281	4,545
Other <u>1/</u>	73	262

1/ Includes all leases not in a Federal coal production region and, due to confidentiality requirements, includes all reserve data for Federal coal production regions with less than three leases.

NOTE: Details may not add to total due to rounding.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Operations, Quarterly Mining Report, April 22, 1983, Division of Solid Mineral Leasing, and the Automated Coal Lease Data System, September 30, 1982.

TABLE 4-c
SURFACE ACREAGE OF LEASES,
BY STATE: APRIL 25, 1983

State	Number of Leases	Total Acres
<u>TOTAL</u>	627	948,486
Alabama	15	13,094
Alaska	1	2,560
California	1	80
Colorado	142	159,402
Kentucky	5	4,337
Montana	26	42,448
New Mexico	29	44,760
North Dakota	19	16,860
Oklahoma	48	80,937
Oregon	3	5,411
Pennsylvania	2	80
Utah	216	318,337
Virginia	1	251
Washington	2	521
Wyoming	120	259,408

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Operations, Quarterly Mining Report, April 22, 1983, and the Automated Coal Lease Data System, September 30, 1982.

TABLE 4-d
 SURFACE ACREAGE OF LEASES,
 BY REGION APRIL 25, 1983

Region	Number of Leases	Total Acres
<u>TOTAL</u>	627	948,486
So. Appalachian	15	13,094
Fort Union	22	22,756
Green River-Hams Fork	120	181,709
Powder River	91	183,738
San Juan River	28	44,900
Uinta-Southwestern Utah	281	404,145
Other	73	98,143

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Operations, Quarterly Mining Report, April 22, 1983, and the Automated Coal Lease Data System, September 30, 1982.

TABLE 5-a
ACREAGE OF PRLA'S
SEPTEMBER 30, 1977 AND APRIL 1, 1983

	Number of PRLA's April 1, 1983	Acreage	Number of PRLA's September 30, 1977	Acreage
Alaska	2	5,120	4	10,240
Colorado	17	32,670	37	82,911
Montana	4	14,673	4	14,673
New Mexico	26	75,509	28	75,509*
Oklahoma	-	-	4	5,954
Utah	15	50,909	25	75,592
Wyoming	<u>72</u>	<u>145,410</u>	<u>82</u>	<u>138,275</u>
Total	136	324,371	184	403,154

* Figure does not include the unknown acreage from 2 rejected PRLA's.

TABLE 5-b
LEASES ISSUED FROM PRLA'S
SEPTEMBER 30, 1977 to April 1, 1983

	Leases*	Acres
Alaska	1	2,560
Colorado	7	20,182
Oklahoma	1	5,707
Utah	3	24,682
Wyoming	<u>1</u>	<u>5,078</u>
Total	13	58,209

* Three PRLA's were combined into 1 lease in Oklahoma, 8 PRLA's were combined into 1 lease in Utah, and 2 PRLA's were combined into 1 lease in Wyoming.

TABLE 5-c
PRLA's ISSUED, WITHDRAWN OR REJECTED FROM SEPTEMBER 30, 1977 THROUGH APRIL 1, 1983

	Number of PRLA's April 1, 1983	Issued	Withdrawn or Rejected	Number of PRLA's September 30, 1977
Alaska	2	1	1 ^{1/}	4
Colorado	17	7	13	37
Montana	4	-	-	4
New Mexico	26	-	2	28
Oklahoma	-	3	1	4
Utah	15	10	-	25
Wyoming	<u>72</u>	<u>2</u>	<u>8</u>	<u>82</u>
Total	136	23	25	184

^{1/} Jurisdiction of the PRLA was conveyed to the State of Alaska.

TABLE 6-a
FEDERAL COAL PRODUCTION AND LEASE ACREAGE

<u>Fiscal Year</u>	<u>Coal Production</u> (Million Tons)	<u>Acres Under</u> <u>Lease</u>	<u>Tons Per</u> <u>Leased Acre</u>
1950	7.1	120,747	59.1
1955	5.7	135,740	41.9
1960	5.4	199,272	27.3
1965	6.2	373,997	16.5
1970	7.3	763,658	9.6
1973	24.2	-	-
1974	32.1	-	-
1975	43.6	779,650	55.9
1976	52.5	-	-
1977	50.2	-	-
1978	58.8	788,308	74.6
1979	59.1	799,401	73.9
1980	72.0	812,163	88.6
1981	94.6	842,949	112.2
1982	108.0	948,486	113.9

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Operations, Quarterly Mining Report, and the Division of Solid Mineral Leasing, Federal Coal Management Reports FY 1977 through FY 1982.

TABLE 6-b
 TOTAL UNITED STATES COAL PRODUCTION AND FEDERAL PRODUCTION IN MILLION TONS
 BY STATE: CALENDAR YEAR 1979 THROUGH 1981

State	Production in CY 1979		Production in CY 1980		Production in CY 1981	
	U.S.	Federal	U.S.	Federal	U.S.	Federal
Total	781	60	830	69	824	117
Colorado	18	8	19	9	20	11
Montana	33	9	30	10	34	27
New Mexico	15	5	18	6	19	9
North Dakota	15	1	17	1	18	1
Utah	12	7	13	9	14	9
Wyoming	72	30	95	33	103	60
Other States ^{1/}	620	0	637	1	618	0

^{1/} Few or no Federal coal resources are located in the other States.

NOTE: Details may not add to total due to rounding.

SOURCE: Total U.S. Production - Department of Energy, Energy Information Administration.
 Federal Production - Department of the Interior, Minerals Management Service,
 Royalty Management Office.

TABLE 7-a
ANTICIPATED SALES AND BONUS BIDS

Region	Anticipated Sales of Recoverable Reserves (Billion Tons)	Ave. High Bonus Bid (Cent/Ton)	Total High Bonus Bid (Dollars)
Fort Union	.6	4.0	24,000,000
San Juan River	.35	7.0	24,500,000
Uinta-SW Utah	.6	10.0	60,000,000
So. Appalachian	.1	3.0	3,000,000
Green River - Hams Fork	.6	8.0	48,000,000
Powder River	<u>1.8</u>	5.0	<u>90,000,000</u>
Total	4.05		249,500,000

NOTE: Anticipated sales, average high bonus bids and total high bonus bids are based on analysis of information available and only represent a rough estimate of anticipated receipts and sales. Anticipated average high bonus bid in cents per ton, and total high bonus bids are given in constant 1983 dollars for each region.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing.

TABLE 8-a
 PROJECTED FEDERAL LEASE AND MINE DEVELOPMENT POTENTIAL
 OF LEASES ISSUED AS OF 1980
 IN THE FIVE ACTIVE WESTERN COAL REGIONS

Region Name	Producing/Favorable		Uncertain/Unlikely		Expected 1991 ^{1/} Capacity
	#	Billion Tons	#	Billion Tons	
Fort Union	14	.27	9	.28	32.4
Powder River	62	8.46	11	.73	236-247
Green River/ Hams Fork	72	1.19	28	.84	56.3-59.4
Uinta/SW Utah	142	2.15	125	1.92	61.3-80.9
San Juan	21	0.44	6	.04	25
Total	309	12.51	179	3.81	411-444.7

^{1/} Capacity of producing and favorable mines with Federal leases.

SOURCE: U.S. Department of the Interior, Bureau of Land Management, Division of Solid Mineral Leasing, April 22, 1983, and Congress of the United States, Office of Technology Assessment, An Assessment of Development and Production Potential of Federal Coal Leases, December 1981.

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TABLE 8-b
 TOTAL REGIONAL PRODUCTIVE CAPACITY, PRODUCTION
 FORECAST AND RESERVE DEMAND ESTIMATES FOR 1995

Region Name	Estimated ^{1/} Capacity mmtons/yr	Estimated Production mmtons/yr	Demand for Coal Reserves billion tons
Fort Union	40	36 - 50	.3 - .6
Powder River	343	215	1.0 - 3.9
Green River/ Hams Fork	54	50 - 70	.2 - 1.1
Uinta	49	42 - 60	.0 - 2.2
San Juan	<u>71</u>	<u>40 - 60</u>	<u>.3 - 1.5</u>
Total	557	384 - 470	1.8 - 9.3

^{1/} BLM field office estimates assuming no demand constraint but current mine marketing cost constraints.

SOURCE: U.S. Department of the Interior, Bureau of Land Management,
 Division of Solid Mineral Leasing, April 22, 1983.